Corporate Social and Environmental Disclosure:

Evidence from Saudi Arabia

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Declaration

I confirm that this is my own work and the use of all material from other sources has been properly and fully acknowledged.

Roaa Osama Badkook

Dedication

My wonderful parents (Thana'a Hassan, Osama Badkook),
My Beloved Husband and wonderful children (Hassan Kutbi, Yasma and Yosuf)
My dream came true due to your unconditional love and sacrifices.

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In the name of Allah most gracious most merciful

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Abstract

The aim of this study is to elevate the understanding of corporate social and environmental disclosure (CSED) by examining the nature and level of CSED by the listed companies in Saudi Arabia. It analyses CSED determinant's which includes: firm characteristics and corporate governance aspects. Four theoretical perspectives, namely stakeholder, legitimacy, institutional, and Agency theory, used to assist in better understanding and analysing the findings on the CSED in Saudi Arabia.

This study adopts a quantitative approach; the selected sample consists of 164 corporate reports of Saudi companies listed on the Saudi Stock Exchange, in 2012. Content analysis is used to measure the extent of social and environmental information that are reported. An information index was devised. The data were examined using descriptive and statistical tests multivariate analyses and negative binomial regression.

The results show more than 70% of the companies report social and environmental information, most of the disclosures are related to human recourses, community involvement and economics. Human recourses category rate is 41.5 %, community involvement at 24.5%, and economic disclosure is 20%. Less attention is given to environmental, customers and products reporting. The Saudi government encourages companies to follow the Saudisation regulations and the Ministry of Labour regulations. Hence companies tend to report considerably more on information issues addressed by the government.

This study examines the factors affecting the level of CSED which are firm characteristics and corporate governance. CSED level is positively associated with firm characteristics (firm size, age, profitability, and leverage), and corporate governance mechanism (government ownership and audit firm size). There were no significant results for managerial ownership, foreign ownership, CEO duality, board size and independency. The determinants of CSED categories indicate that firm age is the most influential factor affecting the five categories and human resource is the category that is related with most of the factors.

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List of Abbreviations

CSED	Corporate Social and Environmental Disclosure
CSR	Corporate Social Responsibility
SA	Saudi Arabia
CSER	Corporate Social and Environmental Responsibility
MENA	Middle East and North Africa
NGOs	Non-Governmental Organisations
GDP	Gross Domestic Product
SCGC	Saudi Corporate Governance Code
CMA	Capital Market Authority
CEO	Chief Executive Officer
JCCI	Jeddah Chamber of Commerce and Industry
KSA	Kingdom of Saudi Arabia
SAMA	Saudi Arabian Monetary Agency
ESIS	Electronic Securities Information System
CMA	Capital Market Authority
NCB	National Commercial Bank
SAA	Saudi Accounting Association
SOCPA	Saudi Organization for Public Certified Accountants
SAS	Saudi Accounting Standards
IAS	International Accounting Standards
GAAO	Generally Accepted Accounting Principles
IFRS	International Financial Reports Standards
OECD	Organisation for Economic Co-operation and Development
MCI	Ministry of Commerce and Industry
GCC	Gulf Co-operation Countries
SARCI	Saudi Arabian Responsible Competitiveness Index
CSD	Cooperate Social Disclosure
ACCA	Association of Chartered Certified Accountants
GRI	Global Reporting Initiative
OIE	Old Institutional Economics
NIE	New Institutional Economics
NIS	New Institutional Sociology
ROA	Return on Assets
CG	Cooperate Governance

Chapter 1: Introduction

1.1 Introduction

Corporate social and environmental disclosure (CSED) is a growing phenomenon that has been a focus for businesses and researchers, as corporate social responsibility is one of the voluntary activities that firms are paying more attention to, especially when planning or developing their strategies (Preciado, 2009; Saudiembassy, 2017). As McGuire (1963, p.144) states, "The idea of social responsibilities supposes that the corporation has not only economic and legal obligations, but also certain responsibilities to society which extend beyond these obligations". In addition According to the European Commission (2001, p.5), corporate social responsibility (CSR) is "*a concept whereby companies decide voluntarily to contribute to a better society and a cleaner environment*". From the above definitions, it can be shown that socially responsible companies play a role in improving the society in which they operate in and report on their CSR activities voluntarily. Companies report their social and environmental activities as a form of communication with their stakeholders, as well as the whole of society. Corporate social responsibility (CSR) reporting can be defined as "*the process of communicating the social and environmental effects of organisations' economic actions to particular interest groups within society and to society at large*" (Gray et al., 1996b: p.3). CSR reporting is done to inform them about their interactions and responses to the society in which they operate and as a means of discharging their accountability to these groups. Companies also choose to report their social and environmental practices in order to gain, maintain or repair their legitimacy to society (Gray et al., 1996b), and in the Western context, this is regarded as essential if companies are to continue surviving.

This thesis aims to analyse CSED in Saudi Arabia (SA), which is one of the leading countries in the Gulf Corporation Council (GCC), Middle East and North Africa (MENA), by using the annual reports of the Saudi-listed companies (in 2012).

Saudi Arabia

Little is known about CSED in Saudi Arabia. The limited number of studies that have investigated aspects of CSED in the country indicate it is at an early stage of development and CSED is a growing phenomenon in the country (Alsaeed, 2006; Naser et al, 2006). For these reasons, this research has been conducted to fill this gap in the literature and to contribute to the scholarly field, as well as to CSR practitioners in Saudi Arabia. This research also aims to investigate the determinants of CSED in general and specific CSED categories in Saudi Arabia by examining the effect of the firm characteristics and corporate governance (CG) mechanisms.

This chapter will be organised as follows. Section 1.2 presents an overview of the research background and motivations, followed by section 1.3, where the motivations underlying the research are presented. Section 1.4 discussed the research aims, objectives and questions. The methodology and methods used in this research are briefly outlined in section 1.5, while section 1.6 sheds light on the contribution and the added value of this study. Finally, section 1.7 presents the structure of the thesis.

1.2 Background and justifications for this study

The main aim of this research is to understand the practice of CSED and its categories: environment, human resource, products and consumer, community involvement, economic, general social disclosure and the factors (both firm characteristics and corporate governance mechanisms) that affect CSED in Saudi Arabia. This research is based on the annual reports by Saudi companies listed on the Saudi stock exchange (Tadawul). Corporate social and environmental disclosure (CSED) is a rising phenomenon, especially in developing countries where they have started reporting later than in developed countries. In line with this, the research into CSED in developing countries is less extensive than in developed countries and hence, there is a considerably smaller bank of literature to refer to. Significant numbers of studies have been conducted on developed countries (e.g., Adams and Kuasirikun, 2000; Giannarakis et al., 2014; Gray et al., 2001; Jennifer Ho and Taylor, 2007; Michelon And Parbonetti, 2014; Milne and Patten, 2002; O'Dwyer, 2002). However, a fewer numbers of studies have been conducted on CSED in developing countries (Alsaeed, 2006; Branco and Rodrigues, 2007; Esa and Ghazali, 2012; Gallhofer et al., 2011; Kansal, and Batra, 2014; Li et al., 2013; Muttakin and Khan, 2014; K. Naser et al., 2006; Said et al., 2009). Only a few studies have been conducted in Saudi Arabia (Al-Janadi, Rahman, and Omar, 2013; Al-Razeen and Karbhari, 2004; Alsaeed, 2006; Habbash, 2015; Mandurah et al., 2012).

CSED is considered to be the voluntary disclosure of information on the contributions of corporations and their interaction with both the environment and the community (Gray et al., 1996b; Guthrie and English, 1997; Hackston and Milne, 1996). It is considered to be a proxy of a company's social and environmental performance where interested groups, such as the government, NGOs, investors, customers, can assess the company's interactions with society (Blowfield and Murray, 2008). The term CSED is similar to social and environmental disclosure (Hackston and Milne, 1996; Gray et al., 1996) and corporate social reporting (Gray et al., 1996). Based on the previous studies that have been carried out, CSED has four main categories: environment, human resources, products and consumer, and community involvement (see Branco and Rodrigues, 2008; Hackston and Milne, 1996). Each category concerns their interaction with different issues or groups. For example, environmental disclosure concerns the environment, human resources concern employees, product and consumer concerns customers, and community involvement concerns the local community.

To understand more about CSED, the start of CSR needs to be presented. The classical point of view argues that companies should only pay attention to shareholders and invest in things that increase the company's value, which implies that managers are not allowed to spend on CSR (Friedman, 1962). Making a similar argument, Arrow (1973) stated that a company contributes to the society it is operating in by generating profits, and by doing so, it is considered to be socially responsible. This idea has been presented by the classical economy theory: the only social concern that a company should take into account is maximising shareholders' wealth in an ethical way by following the rules and regulations (Carroll, 1999). However, companies have been criticised in the past for creating various social and environmental problems throughout the time of their economic operation (e.g., child labour, quality and safety issues of products, employees' health and safety issues, environmental pollution and waste of resources) (Gray et al., 1987b; Islam and Deegan, 2008; Reverte, 2009). Because of these problems, companies have been pressurised into considering social and environmental issues while they operate, as public awareness of CSR has increased. It has become a valid issue to take into account social and environmental aspects, as well as different stakeholder groups in companies' operations, and this is what concerns CSR.

Companies are under pressure to be socially responsible (McWilliams et al, 2006) and this pressure has been addressed by (Waddock et al., 2002). He mentioned three sources of the pressure that companies face from stakeholders to engage in CSR: primary stakeholders (e.g., owners, employees, customers, and suppliers), secondary stakeholders (e.g., non-governmental organisations (NGOs) and activists) and governments, institutional forces and general societal trends. This idea has been supported by the argument of Paul and Siegel (2006) that customers, the media, NGOs, institutional and governments are placing increasing pressure on companies to invest more in CSR. As a result, companies are taking not only shareholders into account, but also various stakeholder groups and the society they operate in by being socially responsible. CSR assists companies in keeping good relations with stakeholders by reporting social and environmental information which is considered to be part of CSR (this will be discussed more in Chapter 3) (Gray et al., 1987a).

Although corporate social responsibility is a new issue, along with voluntary responsibility, companies are now giving it more attention compared to other accounting topics. Moreover, awareness of this phenomenon (CSR) has both increased and developed over the last few decades (Karim et al., 2015). This could be due to the role that CSR plays in building a company's trust and reputation, as argued by Carroll and Shabana (2010). Companies report their social and environmental activities through different channels (Porter and Kramer, 2006). For example, their annual reports are one of the channels used. The information or accounts that companies provide could be either mandatory financial accounts or voluntary non-financial accounts. Companies choose to disclose voluntary non-financial information in order to illustrate that they are socially responsible. Corporate social and environmental disclosure, which will be discussed Chapter 3, is an example of the non-financial accounts that enable companies to demonstrate both their accountability and social responsibility (Gray et al., 1996a).

As mentioned previously, the context of this study is Saudi Arabia, where only a limited number of studies have been carried out. For this reason, it is desirable that more studies in CSED in Saudi Arabia are done and this was one of the motives behind this study, which will be discussed in the next section.

1.3 Motivations Underlying this Research

Saudi Arabia is a developing country that has institutional, regulatory and contextual characteristics similar to Islamic and Arab countries. It is ruled by Shari'ah[1] (Islamic law); the constitution and formal rules and regulations that are based on Islamic law (Al-Matari et al., 2012; Hussainey and Al-Nodel, 2008). The Saudi Arabian economy is the largest economy in the Middle East and North Africa (MENA) and one of the largest in the world (Al-Filali and Gallarotti, 2012; Al-Matari et al., 2012, Piesse et al., 2012). Additionally, Saudi Arabia performed 25% of the total Arab Gross Domestic Product (GDP) in 2010 and 44% of the total Arab market capitalisation (Alshehri and Solomon, 2012; Albassam, 2014, Hearn et al., 2011). It is one of the largest oil-producing countries in OPEC and was accountable for 31% of the total oil production of OPEC in 2010 (Albassam, 2014; Habbash et al., 2015). Saudi Arabia is one of the most competitive economies and the world's fastest reforming business environment. This makes it an ideal investment opportunity. Its tax system is the third most rewarding system in the world. Another factor that gives Saudi a significant status is its growing economy: it is one of the world's fastest growing economies with 6.8 % in 2012 (SAGIA, 2013). Moreover, it is the largest free market in the (MENA) region (SAGIA, 2013). The Saudi government offers incentives, such as tax discounts, and allows foreign owners to take loans from Saudi banks that belong to the government to encourage foreign companies to invest in Saudi Arabia. By 2005, it had 642 foreign companies, of which 174 were industrial enterprises (SAMA, 2006).

[1] Shari'ah is the "*Islamic law about human conduct and regulates everything referring to the life of the Muslim*". It is based on the Quraan (God's Holy Words), "*the deeds and expressions of the Prophet (the Sunna) and the consensus of Islamic scholars*" (Macarulla and Talalweh, 2012, P. 816).

As a result of the factors mentioned in the previous paragraph, some of the Saudi regulations have been changed, such as the accounting profession (Al-Rehaily, 1992), the corporate governance code (Albassam, 2014), investment policies and stock market regimes (Tadawul, 2015). Some of these regulations and codes mean that companies now have to pay more attention to accountability and transparency. For example, the Saudi Corporate Governance Code (SCGC) (2006, Article 10) includes stakeholder rights in sub-section (e) "*outlining a written policy that regulate the relationship with stakeholders with a view to protecting their respective rights; in particular*" (Authority, 2006). Additionally, Part Three of the SCGC focuses specifically on enhancing both corporate transparency and voluntary disclosure (Authority, 2006).

There is a shortage of CSR and CSED research in Saudi Arabia (e.g., Maghrabi, 2008; Abbas et. al. 2012; Mandurah et.al. 2012; Nalband and Al-Amri, 2013). This situation is further worsened by the lack of CSR adoption in its corporations' strategies. This is against a background of the growth of the Saudi economy; hence, the need for the government to encourage companies to comply with CSR standards, as stipulated by the governance code.

This study is considered significant for several reasons:

The first motivation is the relatively low level of CSED that was found in the results of previous CSED studies (Al-Janadi et al., 2013; Albassam, 2014; Alsaeed, 2006; Habbash, 2015). Based on the status of Saudi Arabia, the level of CSED should be higher. Saudi Arabia, as mentioned previously, is a leading country in the Middle East with the largest economy and is one of the largest economies in the world (Al-Filali and Gallarotti, 2012; Al-Matari et al., 2012, Piesse et al., 2012). It is also one of the most competitive economies and the world's fastest reforming business environments, which makes Saudi Arabia an ideal investment opportunity. In addition, it is an Islamic Arab country where Shari'ah[2] (Islamic law) is the main regulatory source, and the constitution and both formal rules and regulations are based on Islamic law (Al-Matari et al., 2012; Hussainey and Al-Nodel, 2008). CSR is one of the Islamic

[2] Shari'ah is the "*Islamic law about human conduct and regulates everything referring to the life of the Muslim*". It is based on the Quraan (God's Holy Words), "*the deeds and expressions of the Prophet (the Sunna) and the consensus of Islamic scholars*" (Macarulla and Talalweh, 2012, P. 816).

and cultural values that companies who operate in Saudi Arabia should consider performing and reporting on.

The second motivation is that CSED in the Saudi corporate governance code is considered to be part of a company's annual reports voluntary disclosure, which aims to ensure the protection of the rights of both shareholders and stakeholders, and could affect the level of CSED in Saudi-listed companies. This can create pressure on companies to disclose social and environmental disclosure, as the corporate governance code is issued by the Capital Market Authority (CMA) (Al Matari et al., 2012). Therefore, further examination of CSED practice in Saudi Arabia is needed in order to analyse the extent and nature of CSED and whether companies respond to the pressure from regulatory bodies.

The third motivation is that companies are engaging in CSR and reporting their CSR activities, even though the level of CSED is low, as mentioned previously, as it is still a voluntary practice to a certain extent. Moreover, they are reporting on its various categories in their annual reports, standalone reports or websites. This study will closely examine the nature of the CSR information that companies are reporting on and look at what information items they have paid the most attention to. This study also provides an analysis of the reasons why companies report their social and environmental practices by assessing the legal enforcement and government laws and regulations that are related to CSED and examines the extent to which companies have reported on them.

The fourth motivation results from the dearth of empirical research that examines the extent and nature of CSED and the determinants of CSED and its categories in Saudi Arabia. Furthermore, corporate governance is considered to be a new phenomenon in Saudi Arabia. It is a growing issue that companies are now giving more attention to (Albassam, 2014). Corporate governance aims to satisfy the demands of stakeholders and shareholders, as well as social responsibility. Moreover, corporate governance enhances voluntary disclosure, including CSED. Alsaeed (2006), Macarulla and Talalweh (2012), Al-Janadi (2013) and Habbash (2015) are the only studies that have examined the effect of some corporate governance mechanisms on the level of CSED in Saudi Arabia.

This study will contribute to the literature by examining the effects of firm characteristics and corporate governance characteristics on CSED, and it will be the first study on Saudi Arabia to examine the effect on CSED categories. In addition, this PhD research is sponsored by the Saudi government. It is an ethical responsibility to focus the research on Saudi Arabia, as this could be beneficial to the country and contribute towards improving both the quantity and quality of disclosure. It might also have some policy implications, and this is considered a primary motivation for conducting the research in Saudi Arabia.

After presenting the background and justification for this study, it is essential to highlight the research's aim and questions in the next section.

1.4 Research aim, objectives and questions

The overall aim of this research is to analyse the extent and nature of corporate social and environmental disclosure (CSED) in Saudi Arabia with respect to the factors that affect the extent and the nature of disclosure.

The objectives to achieve this aim are:

First objective:

To examine the extent and the determinants of CSED using content analysis to analyse the Saudi-listed companies' annual reports.

Second objective:

To analyse the nature and the determinants of CSED in terms of the type of categories that have been reported by Saudi Arabian-listed companies.

These two objectives will be addressed by answering the following research questions:

RQ1: What is the extent and nature of the social and environmental information that is reported by Saudi-listed companies?

This research question is addressed in Chapter 5.

RQ2: What are the determinants of the level of CSED reported by Saudi-listed companies?

This research question is addressed in Chapter 6.

Two sub-questions fall under RQ2: one is related to the firm characteristics that aim to examine the effect of specific characteristics (e.g., firm size, firm age, profitability (ROA and leverage) on the level of CSED in Saudi Arabia.

RQ2.a: Do the corporate characteristics of Saudi Arabian-listed companies affect the level of CSED?

The other sub-question is related to the corporate governance mechanisms to examine the effect of specific corporate governance mechanisms (e.g., ownership, board size, board independence, CEO duality and audit firm size) on the level of CSED in Saudi Arabia

RQ2.b: Do corporate governance mechanisms of Saudi Arabian listed companies affect the level of CSED?

RQ3: What are the determinants of the level of CSED in terms of the categories that are reported by Saudi Arabian-listed companies?

This research question is addressed in Chapter 7.

There are two sub-questions under the RQ3; one aims to examine the effect of specific firm characteristics (e.g., firm size, firm age, profitability (ROA) and leverage) on the level of CSED categories in Saudi Arabia

RQ3.a: Do the corporate characteristics of Saudi Arabian-listed companies affect the level of each category of CSED?

The other sub-question is related to the corporate governance mechanism to examine the effect of specific corporate governance mechanisms (e.g., ownership, board size, board independence, CEO duality and audit firm size) on the level of CSED categories in Saudi Arabia.

RQ3.b: Do the corporate governance characteristics of Saudi Arabian-listed companies affect the level of each category of the CSED?

The above research questions will be addressed in this research by using a specific methodology and that method will be discussed in the next section. A detailed discussion of how each research question and its supporting research questions are linked with and supported by the relevant literature is presented in Chapter 3.

1.5 Summary of the Research Methodology and method

The aim of this research is to analyse corporate social and environmental disclosure (CSED) in Saudi Arabia by using Saudi-listed companies' annual reports. This study is a deductive study that starts by reviewing the related literature and appropriate theories as guidance to the research (Adams, 2007). Four key theories are used as the basis of the arguments when the main research questions are discussed, analysed and posed. These are stakeholder theory, legitimacy theory, institutional theory and agency theory. A quantitative method is used, which is in line with choosing a deductive approach (Alsaeed, 2006; Hackston and Milne, 1996). This research uses secondary data, such as the financial reports, corporate social responsibility stand-alone reports and corporate websites of the sample. The data is required to develop a balanced understanding of CSED practice in Saudi Arabia; therefore, all the Saudi-listed companies in the data collection year are included in the study sample to give an extensive view of CSED in Saudi Arabia. Content analysis of the annual reports and other reports, documents and information is the technique that is used to collect data at this stage. As part of the content analysis, a CSED index was devised, which mainly used the Global Reporting Information Guidelines and existing literature, such as Hackston and Milne (1996), who used content classifications of CSED based on the earlier schemes developed by Ernst and Ernst (1978), Guthrie (1982) and Gray et al. (1995). The main categories in the previous research were four categories of disclosure: environment, energy, human resources, product and safety, community involvement and others. In addition, sub-categories of disclosure were classified under each category. In this study, energy is considered as a sub-category under environment. Two more categories have been added to the previous categories, economic and general social disclosure (see appendix 2 for CSED Index). These two categories have been added based on GRI reports and the annual reports of the selected sample of Saudi listed companies in the pilot study[3]. Some of the data has been collected manually from reports and other types of data, such as financial data collected by using the Bloomberg online database.

The sample selected for this study consisted of 163 Saudi-listed companies operating in 15 different sectors in 2011 and 2012. These are all Saudi companies listed on the Saudi Stock Exchange (Tadawul). A total of 244 reports were used to collect the data (i.e., 163 reports in 2012 and 80 reports in 2011, which were available at the time of data collection).

The quantitative method has been used to analyse the collected data to explore the extent of CSED practice in Saudi Arabia, in addition to investigating the motivation behind companies that disclose their social and environmental practices. Statistical descriptive analysis is used in order to discover the companies' approach toward corporate social and environmental practices, which are represented in their annual reports. Moreover, statistical tests, such as correlations and regressions, are used to test the hypotheses by investigating the associations between CSED with the firm characteristics and corporate governance aspects in order to answer the research questions. This will be from the research contributions discussed in the next section.

1.6 Contributions of this study

After addressing the motivation behind the study, as well as the research aim, objectives and questions, this research contributes to CSED literature in the following ways.

Firstly, this study contributes to the literature about developing countries in general and Saudi Arabia in particular. Although significant numbers of studies have addressed the issues of corporate social and environmental disclosure (CSED) in the past, few of them have been carried out in developing countries in general and Saudi

[3] A pilot study was conducted on a sample of 30 companies (see section 4.6.1).

Arabia in particular (Al-Janadi et al., 2013; Alsaeed, 2006; Habbash, 2015). In addition, the findings of this study provide scope for future research.

Secondly, this is the first study in Saudi Arabia to analyse in detail CSED information reported by listed companies, including the categories, sub-categories and items. This insight analysis contributes to Saudi literature by providing an overview of what Saudi-listed companies both perform and report on about their corporate social and environmental activities and information.

Thirdly, this study contributes to the extent of the literature there is about the determinants of CSED by providing empirical evidence on the factors that determine the level of CSED. There are still debates about the effect of some of the firm characteristics and corporate governance mechanisms on the level of CSED and previous studies found mixed results. The factors investigated in this study include firm characteristics (firm size, firm age, profitability, leverage) and corporate governance (firm ownership structure, board size and independence, CEO duality and audit firm size).

Fourthly, the study contributes to CSED literature by examining the determinants of CSED and its categories due to the scarcity of literature that examines the determinants of CSED categories, particularly economic disclosure. To the best of this researcher's knowledge, this is the first study that investigates the factors that affect the choice and level of CSED categories in Saudi Arabia. The types of CSED (categories) differ between the Saudi-listed companies. Six different categories construct the index of this study, which contribute to the literature by providing empirical evidence of the determinants of the level of each CSED category. The factors used to investigate the determinants of the choice and level of CSED categories are firm characteristics (firm size, firm age, profitability, leverage) and corporate governance (firm ownership structure, board of directors' size and independence, CEO duality and audit firm size).

Fifthly, this study also contributes by analysing corporate social and environmental disclosure in the Saudi context, which may have particular importance for organisations, policy-makers and regulatory bodies, such as the Ministry of Commerce and Industry, Ministry of Labour, the Capital Market Authority and the

Saudi Stock Exchange (Tadawul). The findings of this study assist in an understanding of whether the empirical evidence supports and justifies the need for a change in the decisions of organisations and policy-makers or regulatory authorities' rules and regulations in order to enhance the ability of companies to engage in social and environmental activities by reporting these activities and information in Saudi Arabia.

1.7 Structure of the Thesis

This thesis consists of eight chapters (as shown in Figure 1.1) that analyse corporate social and environmental disclosure (CSED) and the determinants of the level of CSED. This chapter one an introduction to the thesis that discusses the background and motivations of the research, articulate the main research aim, objectives and questions, as well as presenting a summary of the methodology and elaborating on the research contribution. It concludes with a brief outline of the thesis structure.

Since Saudi Arabia is the focus of this study, Chapter two presents an overview of Saudi Arabia, including the political, legal and economic culture systems in Saudi Arabia. It addition, it aims to explore the accounting and reporting system, corporate social and environmental disclosure and the corporate governance framework in Saudi Arabia, which will assist in understanding the practice of CSED in Saudi Arabia.

Chapter three contains the literature review and discusses the development of corporate social responsibility and corporate social and environmental disclosure. Furthermore, there is a discussion of related theoretical and empirical literature on corporate social and environmental disclosure. This chapter consists of three main sections: firstly, it presents a discussion of the key concepts of this research, which are corporate social responsibility (CSR) and corporate social and environmental disclosure (CSED). Secondly, it reviews three key theories that are associated with CSED, which are the stakeholder, legitimacy, institutional and agency theories, by emphasising their implications within the Saudi context. A discussion of the theories provides a better understanding of CSED behaviour and explains the relationship between the firm characteristics, corporate governance mechanisms and CSED. In addition, it helps in the process of interpreting and justifying the empirical results. Thirdly, a critical analysis of the existing empirical literature of CSED in general and of the specific determinants of CSED, from both developed and developing countries, is covered in this section. The research questions and hypotheses are developed in Chapter 2.

Chapter four provides the research methodology, including the research paradigm and philosophical assumptions of choosing the research paradigm. It also provides the research method, the data collection techniques and variables measurements, including the constructed CSED index. The final part of Chapter Four explains the statistical analysis techniques.

Chapter five presents an analysis of CSED practice in Saudi Arabia by using a content analysis technique of the annual reports of Saudi Arabian-listed companies. The data is analysed to explain the extent and nature of CSED practice in Saudi Arabia. In addition, more analysis is done to analyse the nature of the information that is disclosed by Saudi-listed companies in terms of the CSED categories and sub-categories.

Chapter six is an empirical analysis of the determinants of the level of CSED and investigates the association between firm characteristics, corporate governance mechanisms and the level of CSED in Saudi Arabian-listed companies, using a multivariate regression analysis for testing the effects of the characteristics and aspects on the level of CSED.

Chapter seven provides an empirical analysis of the determinants of the CSED categories, analysing the determinants of the CSED categories (the firm characteristics and corporate governance mechanisms). Negative binomial regression is the statistical test that is used to test the related hypotheses.

Chapter Eight is the final chapter and presents the findings of the research and their theoretical justification. Furthermore, it presents the research contribution, limitations and future research suggestions.

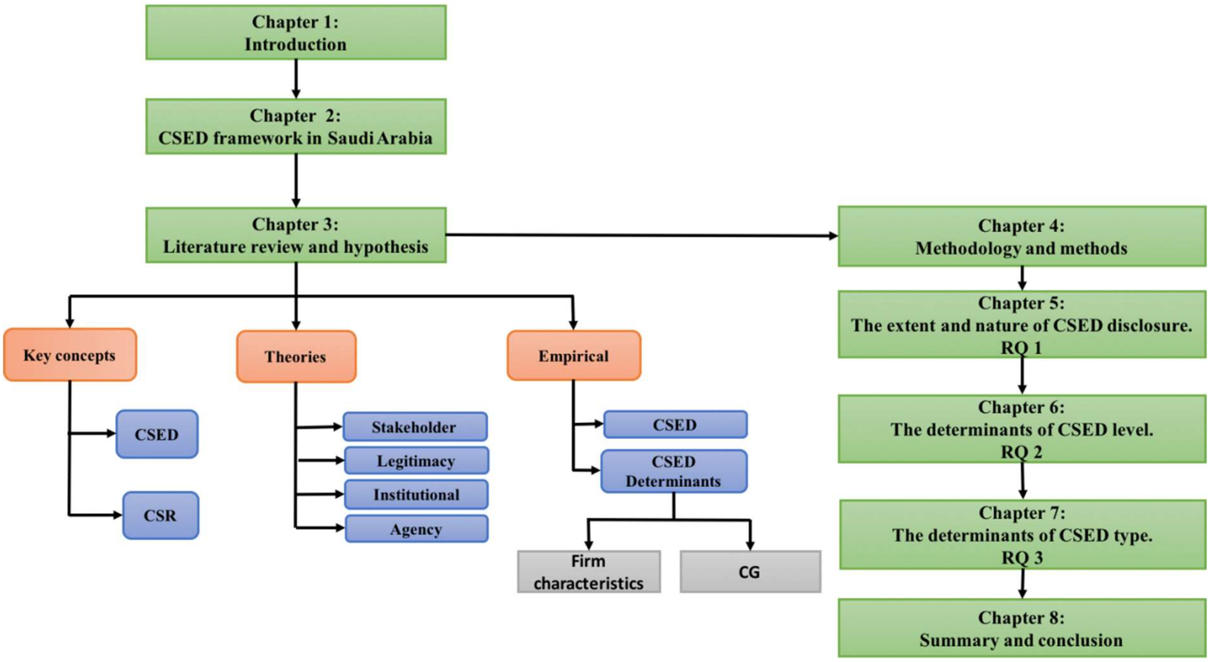

Figure 1.1: Thesis structure

Chapter 2: Chapter Two: The context of Saudi Arabia

2.1 Introduction

Following the introduction to the phenomenon of CSED, this chapter will discuss some of the factors which influence the development of CSED in Saudi Arabia. These include the influence of politics, religion, culture, economics and foreign investment, as well as other factors. This chapter is organized as follows: section 2.2 provides the context of Saudi Arabia, followed by section 2.3 which provides an overview of the Saudi political and legal system. Section 2.4 sheds light on the Saudi economic system which includes business, foreign investment and the Saudi Stock Exchange. Section 2.5 focuses on the Saudi Arabian culture, followed by the system of accounting and financial reporting in section 2.6. Section 2.7 explores the corporate social and environmental disclosure in Saudi Arabia. Section 2.8 discusses the corporate governance framework in Saudi Arabia. Finally, a summary of the chapter is provided in section 2.9.

2.2 Context of Saudi Arabia

The Kingdom of Saudi Arabia is one of the Middle Eastern Countries and one of the Gulf Co-operation Council Countries. It is located in the south-west corner of Asia in the Arabian Peninsula and it occupies around 80% of it (Saudiembassy, 2017). Saudi Arabia has borders with Iraq, Jordan and Kuwait to the north, Yemen and Oman to the south, and Qatar, Bahrain and the U.A.E to the east (Saudiembassy, 2017). Also to the east is the Arabian Gulf and the Red Sea lies to the west (Saudiembassy, 2017; Shoult, 2006). The capital of Saudi Arabia is Riyadh. Saudi Arabia has two holy Islamic cities: Mecca (the direction of all Muslim prayer in the world) and Medina (city of Prophet Mohammed). Every year significant numbers of Muslims come to these cities from all over the world to make pilgrimages (either Omrih or Hajj). The population of Saudi Arabia (2016 estimate) is nearly 31.7 million people, 11.5 million of them non-Saudi (Saudiembassy, 2017). Saudi Arabia consists of thirteen provinces, each of which has its own provincial capital. Arabic is the official language, and the

Arabic calendar (Hegira) is used (Shoult, 2006). The official religion of Saudi Arabia is Islam, and its influence pervades all aspects of life in the country, including accounting practices, banking and the Stock Exchange.

2.3 Political and legal System

Saudi Arabia is an absolute monarchy the laws of which, are based on the Quran and the Sunnah, and some elements of Egyptian, French and customary law (CIA: World Factbook 2014) are issued by Royal Decree. The main legislative bodies are the Majlis al-Shura (Council of Consultation) and the Council of Ministers, which has the King as its head and the Crown Prince and Prime Minister as members.

Consultative Council (Majlis Al-Shura) has one hundred and fifty members, chosen by the King, and based in Riyadh (Saudiembassy, 2017). In 2003 the Council of Ministers announced its intention to introduce elections for a third of the Majlis incrementally over a period of four to five years. This process indicates the government plan to engage Saudi citizens in decision making (CIA: World Factbook, 2014). The council of Ministers helps the King carry out his duties; all the members are appointed by the monarch every four years. These two bodies have the power to take initiatives or approve public policy (Basheikh, 2002). Recently women began to play a role in the Saudi Government as they have been appointed in Majlis Al-Shura and the Jeddah Chamber of Commerce and Industry (JCCI). Moreover, the deputy Minister of Education is a woman for the first time. Another significant change in government policies can be shown in the recent elections to the board of directors of Jeddah Chamber of Commerce and Industry (JCCI) for the year 2015, in which elections women were allowed to hold positions and to vote.

Saudi Arabia has never been colonised by any Western country, but some of these countries have exerted an influence on accounting in the Kingdom through accounting education or the development of the capital market and this western effect is considered to influence corporate social and environmental practices and disclosure.

As mentioned previously, Islam is the official religion of Saudi Arabia, and all aspects of life are based on Shari‘a law which refers to the body of Islamic law (www.Saudiembassy.net). The legal system in Saudi Arabia is based on the Quran as the main source, which provides the guidelines, not only for individual behaviour and actions, but also for social and community life. The Sunnah, containing Mohammed's peace be upon him (PBUH) directives as to how the ideals of the Quran can be applied in practical terms, is the second source. Ijma and Qiyas are other sources; Ijma is the interpretation of certain Islamic traditions as decided by theologians in the first few hundred years of Islam, while the Qiyas serves to resolve new problems emerging from scientific and cultural developments through the application of principles from the Quran and Sunnah (Basheikh, 2002).

2.4 Economic system

In the past, Western Asia was ruled by different Arab tribes and had very few sources of income; basic agriculture was the main economic activity in addition to some revenue earned from helping pilgrimages to visit the Holy Places, such as Mecca. The need for accountancy was not necessary in such an environment (Elkharouf, 1985). However, this changed with the discovery of oil in the late 1930s, where oil became the principal source of income for the government. A rise in oil prices then boosted the economy and allowed for industrial diversification, followed by a global recession which, in turn, resulted in a drop in oil prices leading to economic instability. In the light of this, the Saudi government realized the benefit of varying the economic sources rather than depending on a single commodity (Al-Rehaily, 1992). In the last two decades, Saudi Arabia has encouraged political economic and social developments which result in an improved economic position. Saudi Arabia has become one of the largest economies in the world with the largest stock market in the Middle East (Al-Filali and Gallarotti, 2012; Al-Matari et al., 2012, Piesse et al., 2012).

Basheikh (2002) reports that the Saudi government has begun a number of development programmes, such as five-year development plans. The first development plan was carried out between 1970 and 1975, and still continues. The basic concepts behind these plans are: firstly, to restate the government's commitment to the dissemination of Islam and its social and cultural values; secondly, to support free enterprise to provide benefits the entire community; thirdly, to create a wide range of facilities and institutions that will enhance the social and personal lives of all Saudis; fourthly, to decrease dependence on petroleum as the only source of the country's revenues and, finally, to complete the solid infrastructure which is necessary to achieve the other aims. In line with the development programs that Saudi Arabia has implemented in its plans, the government has announced a new vision (Saudi Arabia's vision for 2030) in 2016 encompassing long-term goals and expectations which reflect the countries strengths and capabilities[4] . One of the goals is to use other rich natural resources and not to depend solely on oil. In addition, the vision is to transform its unique strategic location into a global hub connecting the three continents (Asia, Europe and Africa). Moreover, one of the vision's goals is to introduce transparency and accountability reform by setting up performance criteria for government agencies.

Companies are required to use the government plans and vision as a guide for corporate social responsibility: for example, where the government's priority is education a company could choose to contribute to this in order to enhance the legitimacy of educational reform. Based on the new vision, companies are expected to be more accountable and transparent in adhering to government plans.

2.4.1 Business in Saudi Arabia

According to the latest report of the official central department of statistics and information of Saudi Arabia (2010), there are 910,000 companies operating in Saudi Arabia, most of which are small and family-owned (84%), followed by 13% medium size companies and only 3% large. Around 87% of the companies are operating in the private sector, while 12% are in the public sector and 1% are non-profit organizations and foreign companies. In 2000, foreign investment was permitted in Saudi Arabia. The Saudi government at that time encouraged foreign companies by offering incentives such as tax discounts and allowing foreign owners to take loans from Saudi banks belonging to the government. By 2005 there were a total of 642 foreign companies, of which 174 were industrial enterprises (SAMA, 2006).

According to Al-Rehaily (1992), the rapid growth of the Saudi Arabian economy has greatly affected the accounting profession. There has been a rise in per capita income from oil revenues, which has led to increased consumption. Imports and exports have both increased. All sectors have been involved in development plans in which huge sums of money have been invested. Great changes have taken place over the past thirty years in the form of business enterprises active in KSA, with the trend moving away from traditional individual or family-owned businesses towards partnerships and corporations (CMA, 2009). Since the early 1970s the considerable rise in the number of corporations has led to a demand for a broad range of accounting services, and therefore to an increase in the number of firms offering such services (Al-Rehaily, 1992).

Saudi Arabia is one of the world's top 20 most competitive economies and has significant number of factors that make it the ideal investment opportunity. One of these factors is that Saudi is the world's fastest reforming business environment. It is also one of the world's largest economies and the largest economy in Middle East and North Africa (MENA). Its tax system as it is the third most rewarding system in the world. Another factor is its growing economy: Saudi is one of the world fastest growing economies with 6.8 % in 2012. Moreover, it is the largest free market in (MENA) region.

2.4.2 The Saudi Stock Market and corporate governance

The first joint stock company, the Arab Automobile Company, was established in Saudi Arabia in 1943. By 1975 there were 17 public companies, but at this time there were no regulations (Basheikh, 2002). This number increased rapidly during the economic boom of the 1970s when many large corporations and joint venture banks were set up, but the market remained informal until the early 1980s, when the government began a rapid development programme. As part of the Saudi government intention to create a free market economy, an official stock exchange was formed (Hussainey and Al-Nodel, 2008; Tadawul, 2012). The responsibility of operating, regulating and controlling was given to the Saudi Arabian Monetary Agency (SAMA). In order to improve the regulatory framework, share-trading intermediation was restricted to commercial banks (Al-Rumaihi, 1997). In 1989 automated clearing and settlement were introduced, and the following year the introduction of the Electronic Securities Information System (ESIS), was developed and operated by SAMA. The number of the listed firms gradually increased from 14 in 1975 to 72 in 1995. In October 2001, the Tadawul system for securities trading, clearing and settlements was initiated. Two years later the Capital Market Authority (CMA) was established (16th June, 2003), under the aegis of the Capital Market Law, with the purpose of operating, regulating, controlling and developing the capital market in Saudi Arabia (Basheikh, 2002; Tadawul, 2012). Foreigners are now permitted to invest in the Saudi stock market, even if they are not resident in the Saudi Arabia. The Saudi stock market is now the largest in the Arab world, based on the capital, and Saudi Capital Market growth between 1996 and 2005 was high, with a huge increase in the number of transactions, volume and value-trading. However, at the beginning of 2006 the stock market crashed, which gave a warning to the Saudi stock market authority who, in July of that year, formulated regulations and requirements for greater disclosure and compliance with corporate governance. In addition, the CMA began to attract foreign direct investment (FDI) by promoting and developing the financial reporting of companies in order to be clearer and more informative for investors (CMA, 2007). However corporate social and environmental disclosure is not included yet in the reporting regulations. In 2007 the Saudi Stock Exchange (Tadawul) separated from the CMA after the Saudi Council of Ministers approval to make it an independent entity (Tadawul, 2012). To date (2016), there are 176 listed companies in the Saudi stock market. The Saudi stock market comprises fifteen sectors (see appendix 3).

2.5 Saudi Arabian Culture

Saudi Arabia is one of the Islamic and Arab countries and is a member of the Gulf Co-operation Council Countries, which has strong religious ties. Arab traditions, such as generosity and hospitality towards strangers, family and friends have also influenced Saudi culture (www.Saudiembassy.net). In Islam, the benefit of the whole society is more important than the individual, so harming or wasting resources is forbidden (Yaseen Al-Janadi et al., 2013). These Islamic and cultural attributes make social and environmental activities common and familiar to company managers and decision makers as well as to stakeholders and other groups in the expectation that they will positively contribute to the region where they operate.

Hofstede (1980) has described the culture of Arab countries as homogeneous and united by a common language (Arabic). He argues that Saudi Arabia exemplifies a high-power distance society where, for example, children usually have a great respect toward their parents. In Saudi Arabia, managers make decisions dictatorially (Bhuian, 1998). In his view, Saudi Arabia is a high uncertainty avoidance society; as a result, people usually depend on Islamic religion as a protection from unknown situations (Al- Rumaihi, 1997; Basheikh, 2002). Moreover, Saudi society is highly traditional and emphasises relationships with family and friends. As mentioned previously, Islam influences Saudi culture, such that Saudi children are expected to look after their parents and remain close to them, as well as remaining together in groups and contributing to these groups. The leader of the group plays a role in organizing it. These features in Saudi society demonstrate the importance of collectivism. A high degree of masculinity is another prominent cultural feature of the Saudi society, despite Islam does not distinguishing between men and women (Al-Rumaihi, 1997; Basheikh, 2002). Although men and women have the same rights in the work place, the majority of the workforce is formed by males; the opportunities open to women are limited, and women are not represented in high-ranking positions. However, this has begun to change: as recently as 2014 a woman was appointed as a CEO of the largest bank in the Saudi, National Commercial Bank (NCB) and women now have more presence in official councils.

Nowadays, Saudi is influenced by Western culture. This effect can be seen especially in the younger generation. The influence of developed countries on Saudi culture extends to accounting and reporting. A large number of managers and employees completed their higher education at universities in the USA, the UK or other Western countries. The increase in adopting CSED practices by Saudi companies recently could be due to many factors; such as the influence of multinational companies operating in Saudi, as well as Saudi companies aiming to gain a competitive advantage by being socially responsible by competing globally. The next sub-section (1.6) aims to explore the accounting and financial system in Saudi Arabia.

2.6 The accounting and financial reporting system in Saudi Arabia

Given that Saudi Arabia is an Islamic Arabic developing country, it has institutional, regulatory and contextual characteristics similar to some other developing Islamic and Arab countries (Piesse *et al.,* 2012). The western accounting system influenced that of Saudi: according to Basheikh (2002), in the 1930s the Aramco company was the first foreign oil production company in Saudi Arabia. At that time, there were no laws or regulations for Saudi companies, which meant that other countries' rules and regulation were used. In 1965, the Saudi Ministry of Commerce issued the first legal guidelines for the accounting profession - the Companies Law - which was revised in 1982, and 1992 (Al-Rumaihi, 1997; Al-Mogbel, 2003). The Company Law consists of 234 articles which assist in building Saudi accounting ordinances. Even so, only a few of these concern accounting and auditing regulations and none of the articles refer to accountancy or accounting standards (Alkahtani, 2010; Al-Mogbel, 2003). To resolve this issue, another law was introduced in 1974, the Accountants Law, which addressed accountancy specifications (SOCPA, 2007).

The third law that underpins accounting regulations in Saudi Arabia is the Income Tax and Al-Zakat Law. In Saudi Arabia, Saudi citizens are not required to pay tax. However, they are, as Muslims with a certain level of income, obliged to pay Zakat[5]. The Income Tax and Zakat Law was introduced in 1950 and revised several times after that (Al-Mogbel, 2003). Starting in 1979 the Saudi government worked to established accounting standards to improve and develop the accounting system. As a result of this, the Saudi Accounting Association (SAA) has been established and the 'General Presentation and Disclosure Standards' which are the first accounting standards in Saudi Arabia, were issued in 1986 with the name (SOCPA, 2007). To continue developing accounting standards, in 1992 the Saudi Organization for Public

[5] 'Zakat' is Islamic social tax: every Muslim individual and company must pay 2.5% of their wealth towards a charitable cause, such as making donations to the poor and needy (Kamla *et al*., 2006). Companies are also required to pay Zakat to the government as a type of tax.

Certified Accountants (SOCPA) was established to take over SAA (Alkahtani, 2010). Recently (2016), the SOCPA approved the change from the Saudi Accounting Standards (SASs), which were based on the International Accounting Standards IASs, the USA Generally Accepted Accounting Principles (GAAO) and UK practice. This transition was designed to improve the Saudi accounting system. The new application of the IFRSs in Saudi listed companies will be on 2017 annual reports and 2018 for the non-listed (SOCPA, 2016).

2.7 Ministry of Labour regulation

The Saudi Labour Law issued by the Saudi Labour Ministry in 2005 (amended in 2015) includes regulations aim to organize the relationship between companies and employees to maximize the benefits and reduce problems. Different issues are included in the labour law for example: the employment system, working hours, health and safety, the employment of disabled people, the retirement system, employment contracts and training systems. Companies are expected to follow these laws and regulation thus, they report doing so to show that they are legitimate. Recently, the Saudi Labour Ministry has introduced a law to reduce the unemployment rate and ensure that there will be ample skills among the locals. This law encourages companies to nationalise jobs (Saudisation) by either recruiting new Saudi staff or replacing foreign employees with local employees in occupied jobs. Moreover, the Saudi Labour Ministry imposes fines on companies that do not comply with this requirement and may be prohibited from receiving any governmental benefits to ensure companies pay more attention to this issue. In the other hand, companies following Saudisation requirements are rewarded by the Saudi government. In 2011, the Ministry of Labour has implemented a system to control companies Saudisation it calls (Netaqat) which is a point system to enforce companies to increase the number of Saudi employees. The higher the rate of Saudi employees the more the points the company got thus, the reward increases (Department of Labour and Employment, Ministry of Labour). Moreover, Saudisation certificate[6] is given to

[6] A Saudisation certificate is given by the Saudi Arabian Ministry of Labour to firms that achieved the Saudisation target.

the companies that follow the saudisation law, without this certificate, the company cannot apply for governmental tenders and projects.

2.8 Corporate social and environmental disclosure in Saudi Arabia

As discussed, Saudi Arabia is an Islamic country and all the Saudi citizens are Muslims which affects the concept and practice of corporate social and environmental disclosure. This concept derives from the Islamic provisions in Quran or Sunnah. Although corporate social and environmental disclosure is voluntary, none of the current laws or accounting standard includes it. However, accountability, sustainability and transparency, which are part of corporate social responsibility, are included in the legal accounting regulations. This might change after the change in accounting standards from the Saudi Accounting Standards (SAAs) to the International Financial Reports Standards (IFRSs). Applying the (IFRSs) is intended to enhance the accountability and transparency, including the practice of corporate social and environmental disclosure. It can also be argued that the legal system affects the form of corporate social responsibility that companies choose to engage in and report. As the offshoot of an absolute monarchy the legal system in Saudi Arabia gives the government regulation and legislation priority in terms of corporate social and environmental disclosure. There is no evidence to suggest that there are legal requirements to enforce companies to disclose their social and environmental activities[7]. However, companies follow the government regulation and plans when choosing the type of social and environmental responsibilities they report: such as job nationalisation, minimum wage and the retirement system. These types of activities that companies undertake become a priority for them rather than other social and environmental activities. Moreover, when the government puts pressure on companies to follow a specific regulation by means of fines for not implementing it or by withdrawing government benefits, such activities will become more commonplace. For example, the Ministry of Labour has its own system, the nationalisation

[7] After searching in Saudi government (official website), SAGIA (investment ministry), Ministry of commerce and industry (SACA) and Ministry of labour and other Saudi regulator (2016)

employing system (Netaqat) to enforce companies to increase the number of Saudi employees. In the case of CSED, in order to enforce compliance, the Saudi government decided to exclude companies' contributions to charities from the "Zakat". As a result of this decision companies could choose to pay the amount specified for corporate social responsibility to charities and to disclose this action in their reports. Corporate social responsibility includes protecting stakeholders' rights as declared in the Saudi Corporate Governance Cods (SCGC) (article 10) which states that "*companies should consider all stakeholders not only company owners, also government, employees, customers and local community*".

2.9 Corporate governance framework in Saudi Arabia

Corporate governance is a relatively new issue in Saudi Arabia; however, it is considered an important part of the Saudi economic reforms. At the beginning, the only regulations related to corporate governance behaviour was included in the Company Law issued in 1965 (Haniffa and Hudaib, 2007; Hussainey and Al-Nodel, 2008). Nevertheless, this regulation addresses only a few corporate governance provisions. International organisations (the World Bank, the Organisation for Economic Co-operation and Development (OECD) recommended giving more attention to corporate governance in developing countries in general and in Saudi Arabia in particular (Rwegasira, 2000; Clarke, 2004; ROSC, 2009, Albassam, 2014). Corporate governance has, in effect, been given more attention following the economic crises in the year 1997/1998 which hit developed and developing countries (Haniffa and Hudaib, 2006). The Saudi Arabian Monetary Agency (SAMA) was the responsible authority for regulating corporate governance as it was responsible for the stock market in the period between 1984 until 2003 when the Saudi government established the CMA (Al-Nodel and Hussainey, 2010). Since its establishment the CMA has become responsible for corporate governance regulation and reform (Alshehri and Solomon, 2012). The latest corporate governance reform, the Saudi Corporate Governance Codes (SCGC), was issued in the year 2006 (Maacarulla and Talalweh, 2012). The reform in corporate governance codes took place after the dramatic decline of the Saudi stock market in 2006, which caused about 25% market value lose in just 2 months (February and march) and by December 53%, after a raped growth in market capitalization since 2004. This growth grasped the attention of the

CMA from forming corporate governance code (SFG, 2009; Alshehri and Solomon, 2012). However, due to the dramatic drop in the Saudi stock market, a question has been raised whether the existence of the governance legislation could effectively protect investors (Al-Abbas, 2009). At that time, the CMA identifies the urgent need to improve corporate governance legislation and develop external corporate governance mechanisms (SFG, 2009; Tadawul, 2012, Alshehri and Solomon, 2012).

In November 2006, the CMA introduced the SCGC aiming to rebuild the invertors confidence in the market and to protect investors (Al-Abbas, 2009). The SCGC, 2006 addresses a various number of corporate governance issues including the rights of shareholders and the general assembly, disclosure and transparency, board of directors and internal controls and risk management (CMA, 2010). According to Alshehri and Solomon, 2012, the corporate governance regime in Saudi Arabia is based on the Anglo-American model of corporate governance giving a great attention to protecting shareholders' interests. The SCGC is mostly derived from the 1992 UK Cadbury Report (Aguilera and Cuervo-Cazurra, 2009; Al-Abbas, 2009; Seidl et al., 2013). For example, as recommended by the SCGC, the board of directors is a unitary board of directors which consists of executive and non-executive directors, who are accountable to shareholders. On the other hand, there are differences in ownership structure, social norms and highly hierarchical social structure which may delay the effectiveness of formal corporate governance mechanisms in Saudi Arabia (Al-Twaijry et al., 2002; Haniffa and Hudaib, 2007; Hussainey and Al-Nodel, 2008; ROSC, 2009; Baydoun et al., 2013).

The Saudi corporate governance structure includes external and internal frameworks. First, the external framework which consists of: The Ministry of Commerce and Industry (MCI), the Capital Market Authority (CMA) the Saudi Stock Exchange (Tadawul) and the Saudi Organization for Certified Public Accountants (SOCPA). MCI was established in 1953 and until 2003 it was the only authority responsible of regulating listed companies. In 2003, the Companies Act has been established by the CMA, which includes a few number of corporate governance provisions in the benefit of protecting shareholders. For example, Article 10 subsection e in the 2006 Saudi Corporate Governance Codes includes provisions related to the stakeholders' rights and social responsibility "*Outlining a written policy that regulate the relationship with* *stakeholders with a view to protecting their respective rights; in particular*" (Authority, 2006). Various responsibilities of the MCI were given to the CMA after the 2006 corporate governance reforms (CMA, 2010). Establishing the CMA in 2003 helped in the external corporate governance reform in Saudi Arabia (Hussainey and Al-Nodel, 2008; Al-Matari et al., 2012). The CMA is mainly responsible of developing and regulating the Saudi stock market, increasing investors' confidence and encouraging transparency and disclosure in listed companies (CMA, 2010). In order to do this, they issued seven corporate governance rules including the 2004 Market Law, the 2004 Listing Rules, the 2005 Investment Funds Regulations, the 2005 Merger and Acquisition Regulations and the 2006 Saudi Corporate Governance Code. The operations of the Saudi stock market Tadawul established in 1985 by Saudi Arabian Monetary Authority (SAMA) (Hussainey and Al-Nodel, 2008; Tadawul, 2012). Before that time, the market continued to be informal. The Tadawul is a regulatory body which responsible for organising the financial market.

Saudi Arabia where corporate governance system concerns more about shareholders' interests (as discussed in 2.9). Although companies are accountable to stakeholders, accountability to shareholders usually taking more of companies attention than other stakeholders (Koenig-Archibugi, 2004), especially in a country like Saudi Arabia where corporate governance system concerns more about shareholders' interests.

2.10 Chapter summary

This chapter presents an introduction of the Saudi Arabian context as one of the Middle Eastern Countries and Gulf Co-operation Countries (GCC) with an absolute monarchical system. Saudi Arabia is an Islamic country; the Saudi legal system and laws are all based on Islamic aspects and Shari'a Law is implemented in all the legal interactions including banking and accounting systems. Saudi Arabia depends economically on the oil industry; however, there is a tendency toward widening the economic resources. This chapter presents a background of business in Saudi Arabia as one of the world's top 20 most competitive economies and one the world's fastest reforming business environment. These previous factors encourage foreign investors to invest in Saudi. Foreign investments have influenced the local companies in many aspects such as companies' policies, accounting system, corporate social and environmental activities and disclosure and corporate governance. Although there is no legal regulation to enforce companies to disclose social and environmental activities, the government (i.e., Ministry of Labour) is putting pressure on companies to be socially responsible. To justify this issue, CSED in Saudi Arabia, the following chapter will discuss the theories and the previous empirical literature.

Chapter 3: Literature Review

3.1 Introduction

The purpose of this chapter is to explore more about corporate social and environmental disclosure (CSED) by identifying the key concepts, addressing the related theoretical perspective and reviewing the relevant literature of CSED in order to formulate the research questions after identifying the gap in the literature. The predominant literature in the CSED field relates to the Western and developed countries with a relatively small but growing bank of literature on CSED in developing countries. Reviewing the existing literature in CSED will lead to an increased understanding of CSED which serve to identify gaps within the existing literature to which a study on the Saudi context contributes.

This chapter is structured into 8 sections. It will commence by identifying the key research concepts in two sections: Section 3.2 discusses the corporate social responsibilities then Section 3.3 discussed the corporate social and environmental disclosure. Followed by Section 3.4 where relevant well-known theories, Stakeholder, legitimacy, institutional and agency theories are addressed for greater understanding of the phenomena CSED. In Section 3.5 the theoretical approach of this research is introduced in order to present the implemented theories. Section 3.6 reviews the existing CSED literature in developed and developing countries including Gulf Cooperation Council countries in general and Saudi Arabia in specific which is the centre of this research. Section 3.7 reviews the literature on the determinants of CSED which are firm characteristics and corporate governance aspects. Section 3.8 provides an overview of the literature on the determinants of CSED categories. Section 3.9 presents the rationale for research questions and formulates aims, questions and objectives for this research. Section 3.10 concludes and summarizes the discussions in this chapter.

3.2 Development of corporate social responsibility

This research aims to investigate corporate social and environmental disclosure (CSED) in Saudi listed companies with respect to corporate characteristics and corporate governance mechanisms as determinacies of CSED. In order to carry out this investigation corporate social responsibility (CSR), and CSED needs to be explored. To do so a look back in the history of corporation is needed. From a classical point of view, Friedman (1962) argues that companies should only pay attention to shareholders and invests in increasing company's value which implies that managers are not allowed to spend on CSR. In a similar point of view, Arrow (1973) stated that by generating profits witch is considered as contribution to the society its operating in, company is considered to be socially responsible. This idea has been presented by the classical economy theory; the only social concern that company should take into account is maximising shareholders' wealth in an ethical way by following rules and regulations(Carroll, 1999). However, Companies have been criticised in the past for creating various social and environmental problems throughout their economic operation (e.g. child labour, quality and safety issues of products, employees' health and safety issues, environmental pollution, waste of resources) (Gray et al., 1987b; Islam and Deegan, 2008; Reverte, 2009). As a result of these problems, companies have been put under pressure to consider social and environmental issues while they are operating as the public awareness of CSR has increased. Considering social and environmental aspects as well as different stakeholder groups in companies' operations have become a vital issue, and this is what CSR concerns.

CSR is the social and environmental effects of business entities to various interest groups and society throughout their economic operations (Rob Gray et al., 1987a). By being socially responsible companies are considering not only shareholders but also various stakeholder groups and the society. Companies are facing pressure to be socially responsible (McWilliams et al., 2006), this pressure has been addressed by Waddock et al. (2002). He mentioned three sources of stakeholders' pressure on companies to engage in CSR; primary stakeholders (e.g. owners, employees, customers, and suppliers), secondary stakeholders (e.g. non-governmental organizations (NGOs) and activists) and governments, institutional forces and general societal trends. This idea has been supported also by the argument of Paul and Siegel (2006) that the customers, media, NGOs, institutional and governments are forming an increasing pressure on companies to invest more in CSR. Companies are expected to respond to the pressure from stakeholders in order to keep good relations with them through reporting social and environmental information which considered part of CSR (will be discussed in the next section (3.3) (Gray et al., 1987a).

Although corporate social responsibility is a new issue, compared to other accounting topics, as well as a voluntary responsibility, companies are now giving it more attention. Moreover the awareness of this phenomenon (CSR) has increased and developed in the last few decades (Karim et al., 2015). This could be due to the role that CSR play in building company’s trust and reputation as argued by Carroll and Shabana (2010). Furthermore, it is concerned with satisfying the legitimate and ever-expanding expectations of society. Companies are aiming to prove their legitimacy by being socially responsible and this is one of the practices that companies do to discharge their accountability to stakeholders and the society. Accountability involves two main responsibilities or duties: 1) to undertake actions or decisions, or not to, 2) to present an account for these actions (Gray et al., 1996c). Increasing accountability is in the best interest of companies (Gray et al., 1996; Power, 1994) and in order to achieve this there is a tendency towards increasing the degree of organisational transparency by increasing the level of disclosure including social and environmental. Transparency is a mechanism of accountability which concerns the visibility and openness of the company when reporting information (Gray, 1992; Gray and Morrison, 1992; Roberts, 2009). Transparency is the provided information by the company about their activities including social and environmental activities, it is how organizations display their accountability and responsibility to society through different channels (Porter and Kramer, 2006). For example, companies’ annual reports are one of the channels that are used to reveal their accountability toward stakeholders. However, “*a complete transparency is an impossible fantasy*” (Roberts, 2009, p. 958). The information or accounts that companies provide could be mandatory, financial accounts or voluntary, non-financial accounts. Companies choose to disclose voluntary non-financial information to illustrate that they are socially responsible. Corporate social and environmental disclosure, which will be discussed in the next section (3.3), is an example of the non-financial accounts that have become one of the companies’ concerns in order to demonstrate accountability and social responsibility (Gray et al., 1996a).

Saudi Arabia, as mentioned in Chapter 2, is a developing country and one of the leading economies in the Middle East which is aiming to improve its economy and investment, with a focus on its foreign investment. Previous factors have encouraged the government to follow international standards in business. CSR is one of the issues that is growing on a global scale to become more of a necessary issue than a voluntary one, although it is still voluntary. The Saudi government's intention can be seen in the new 2030 vision which it announced in 2016. Increasing transparency is one of the key aims of this vision. Moreover, awarding greater attention to the third sector[8] is another aim of the Saudi 2030 vision. Enhancing transparency, as well as paying more attention to the third sector positively affects social responsibility. This new vision and intention of the government will reflect on companies operating in Saudi Arabia.

Saudi Arabia is an Islamic, traditional country which depends on Shariah[9] in all aspects. In Islam, CSR is implemented in all trades such as accountability, environmental, resources conservation and Zakat[10]. As a way of implementing CSR in Saudi business, the Saudi Arabian Responsible Competitiveness Index (SARCI) was launched in 2008 by 2 Saudi companies (one state and one semi private), and one International non-governmental organization. In the first year 40 companies participated and this number continued to increase every year. An award (King Khaled Responsible Competitiveness Award) for the three strongest performances in responsible competitiveness was also presented every 2 years. This index indicates how important CSR has become in Saudi Arabia.

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[8] Third sector is the type of organizations or societies that are not governmental (public) or private it includes charities, voluntary or society groups which are non-profit organizations.

[9] The Shari'ah is the "*Islamic law about human conduct and regulates everything referring to the life of the Muslim*". It is based on Quraan (God's Holy Words), "*the deeds and expressions of the Prophet (the Sunna) and the consensus of Islamic scholars*"(Macarulla and Talalweh, 2012, P. 816).

[10] 'Zakat' is Islamic social tax: every Muslim individual and company must pay 2.5% of their wealth towards a charitable cause, such as making donations to the poor and needy (Kamla *et al*., 2006). Companies are also required to pay Zakat to the government as a type of tax.

As a result of the increased consideration companies and researchers have given to CSR, and as companies' transparency depend on the accessibility of information when communicating with stake holders via different media such as company reports, corporate social and environmental disclosure (CSED) has become a major area of interest for companies and researchers. This method of reporting as a way of communicating with society is the main focus of this study since it's an essential way of showing the stakeholder group how responsible and accountable the company is to society. The next section will address the concept of CSED; will explain in more detail what it is, why it's important for companies to implement it and what the benefits are from reporting CSR activities.

3.3 Development of corporate social and environmental disclosure

As outlined in the above section (3.2) corporate social responsibility (CSR) has become an essential issue companies considering throughout their operations. Since social and environmental disclosure considered as a demonstration of CSR, CSED has become also a significant practice that companies pay more attention to. This section will explore the development of corporate social and environmental disclosure (CSED). Organisations, in the majority of countries, are required to meet regulations (e.g., International Accounting Standards, IAS's) and to report their financial outcomes of their activities to stakeholders in order to evidence their profit and loss. Conventionally, this is the information that financial reports contain. Another type of reporting, which is as important as financial data, is to disclose the non-financial aspects such as social and environmental activities. Albeit it is voluntary to disclose social and environmental activities, it is still important to satisfy stakeholders and to demonstrate the company's legitimacy to operate. Both types of reports are fundamental for the company because they assist in communicating with stakeholder groups and informing them about the economic and societal effects of the company (Murray, 2010).

Corporate social reporting is the technique that companies use to communicate with stakeholders and society to inform them of the companies' economic actions, social and environmental contribution. As defined by Gray et al. (1996b, p. 3) corporate social and environmental disclosure is "*the process of communicating the social and environmental effects of organisations' economic actions to particular interest groups within society and to society at large*". Based on this definition, it can be argued that this communication aims to broaden companies' accountability and responsibility to move beyond satisfying only shareholders by providing financial accounts to all stakeholders and society (Gray et al., 1995; Owen et al., 2001; Turner et al., 2006). Furthermore, CSED considers a type of organisational social accounting to introduce accountability (Gray et al., 2001). As companies are paying more attention to society with regards to how they operate and how they try to avoid harming the environment (e.g. pollution and waste) as well as positively contributing to society by improving the quality and safety of their products, saving resources and caring about their workers' rights (Reverte, 2009). By considering different stakeholders' non-financial anticipations companies could discharge their accountability by disclosing social and environmental issues (Gray et al., 1996; Haniffa, 2002). In addition, CSED is evidence that companies use to as a means to improve their transparency, build good relationship with stakeholders as well as good image and reputation, see for example (Friedman and Miles, 2001; Gray et al., 1988; O'Dwyer, 2005b). Although companies are accountable to stakeholders, accountability to shareholders usually taking more of companies attention than other stakeholders (Koenig-Archibugi, 2004), especially in a country like Saudi Arabia where corporate governance system concerns more about shareholders' interests (as discussed in 2.9) .

CSED has developed throughout the years and its argued that social reporting started before the first world war in the US and Australia and some of the European countries (Hogner, 1982; Murray, 2010). In the mid to late 1960s companies' awareness of CSR practice increased and continued to be a fundamental issue in the 1970s. Companies are concerned about their behaviour towards the environment and society, therefore, they started to include more non-financial aspects in their annual reports (Murray, 2010). Moreover, some countries have created laws requiring non-financial reporting for some social and environmental activities. As a result, managers and researchers are paying more attention to non-financial reporting by carrying out more research related to this issue. New terminology to describe social reporting have been created such as social disclosure and accountability as well as new social performance measures (Gray and Bebington, 2000; Murray, 2010). The 1970s can be described as the foundation stage in CSED (Gray et al., 1995). According to Murray (2010), due to political reasons corporate social reporting decreased and no significant changes took place during the 1980s, but it increased again in the 1990s. Globalisation and economic growth are two significant reasons for the increase in CSD (Perrin, 2008). Companies also started to differentiate between ‘environmental’ and ‘social’ disclosure, moreover the aspects affecting the level of voluntary disclosure had been under investigation. As the awareness of CSED increased, in this period companies that failed to report social responsibility activities were criticised (Murray, 2010). Social voluntary activities were at first reported as non-financial information in the annual reports, however recently it has developed into having separate reports. Moreover the internet is used by organisations to communicate their stakeholder groups through disclosing social practices (Adams and Frost, 2004). As evidence of companies increasingly reporting their social and environmental activates, the increasing number of non-financial reports that has been published around the world. According to the Association of Chartered Certified Accountants (ACCA) 2004 report, in 1993 less than 100 non-financial reports were published, while more than 1500 non-financial reports were published in 2003. Moreover, as shown by Global Reporting Initiative (GRI) (2010), sustainability reports around the world has increased by 22% in 2010 in comparison to the 2009 (Ali, 2014). Different terminologies have been used in research for corporate social reporting which have almost the same meaning, corporate social disclosure (Bella, 2001), social responsibility accounting (Mathews, 1984) and social accounting. (Gray, 2000) In this research corporate social and environmental disclosure (CSED) will be the used terminology.

In Saudi Arabia, CSED has developed as companies today pay more attention to CSR related issue than before. The increased level of Saudi companies CSED in the studies conducted in Saudi Arabia illustrates this development. According to Alsaeed (2006), the mean of the companies voluntary disclosure in forty companies in 2003 was lower than the average while a study by Al-Janadi et al. (2013) includes 87 Saudi listed companies in 2006 and 2007 and states that the average voluntary disclosure level is 14%. The average voluntary disclosure level including social and environmental disclosure has increased to 16% in 2008 according to a study conducted by Macarulla and Talalweh (2012) which includes 132 listed firms. According to Khasharmeh and

Desoky (2013) the level of disclosure (online disclosure) has increased to 21.86%, their study has been conducted in Gulf cooperative countries including 44 Saudi companies. Finally, Habbash (2015), the most recent study, shows that the average level of CSED of Saudi non-financial listed companies is 24% and the study includes 267 annual reports from 2007 to 2011. This proves that the level of CSED has increased and developed accordingly; and that this development could be the result of the significant attention given to CSR in the media, especially after globalisation (Deegan and Gordon, 1996; Gray et al., 1995; Hooghiemstra, 2000; Kolk, 2003). Companies are facing stronger challenges to operate and remain legitimate specifically after globalisation which increased awareness of the significance and benefits of CSED as well as demanding a higher degree of accountability and transparency. One of the ways in which to deal with the above challenges is for companies to report their social and environmental activities in order to gain or maintain legitimacy by responding to stakeholders, society and environment demands (Craig Deegan, 2002b). By contributing positively to society and satisfying stakeholders companies will earn a higher level of trust and enhance their reputation, consequently they will lower their risks and in the long this will lead to better financial performance. In order to understand CSED more, and to justify an organizations intention to be socially responsible in addition to disclosing their social and environmental practices, theories related to CSED will be further explored in the next section.

3.4 Theoretical perspectives and CSED

This section will present four well-known theories which are the most commonly used theories by researchers to explain the issue of CSED (C. Deegan and J. Unerman, 2006). Stakeholder theory, legitimacy theory, institutional theory and agency theory are the applied theories in this research. These theories are overlapping in interpreting the phenomena of CSED. According to Gray et al (1996b), stakeholder theory, legitimacy theory and institutional theory are known as "system oriented theories" they focus on the association between the organisation and society, while agency theory concerns the relation between corporate shareholders and managers. Agency theory also focuses on how companies use information in annual reports and disclosure to communicate with their stakeholders. Analysis of some of the major studies in this field that applied those theories (stakeholder theory, legitimacy theory, institutional theory and agency theory) in explaining CSED will also be presented in this section. This segment will be organised as follows: 3.2.1 Stakeholders theory, 3.2.2 Legitimacy theory, 3.3.3 Institutional theory and finally 3.3.4 agency theory.

3.4.1 Stakeholder theory

Stakeholder theory is one of the main theories in explaining CSED. The theory suggests that companies should take into account all stakeholders, including customers, government, employees, suppliers and society when operating and when making decisions (Abdullah, 2007; Andriof, 2002; Lamberg et al, 2003; Sweeney, 2009). Stakeholder theory is concerned with a new way of post-globalisation thinking. Globalisation had a significant effect on firms management since it encouraged them to take into consideration new aspects of business such as ethics, transparency, sustainability and social responsibility (Re and Reed, 1983). Stakeholder theory places emphasis on satisfying all stakeholder groups, not only shareholders, in addition to explaining the reason behind companies responses to stakeholders' demands that are in alignment with company aims (Freeman, 1984; Mitchell et al., 1997). Stakeholder theory assumes that companies are responsible for fulfilling Stakeholders needs, and part of a company's voluntary obligations are toward different groups such as employees, customers, shareholders, government, creditors, suppliers, community and society as a whole. (Gray et al., 1996b). Stakeholder theory proposes that profitability is not the only reason why companies operate, because they operate for the benefits of the wider society (Albassam, 2014; Cho and Roberts, 2010; Mitchell et al., 1997). Moreover, companies tend to inform stakeholders of their actions toward them as well as their positive contribution to society via different channels such as annual reports and companies' websites.

From what has been discussed previously it can be argued that social and environmental disclosure is a tool that companies' use to illustrate their responsibilities and obligations towards stakeholder groups demands (Brown and Deegan, 1998). Furthermore, companies actions and responses to their stakeholders are the elements that have been used by stakeholder theorists in expressing appropriate and inappropriate corporate behaviour (Driver and Thompson, 2002). According to

Ullmann (1985), the extent to which the stakeholder group demands affect the level of social disclosure depends on how companies respond to stakeholders. Stakeholders' demands consider key aspects that firms should take into account in making decisions or developing their strategies according to stakeholder theory. Moreover, stakeholder theory helps to explain CSED and the factors affecting companies' disclosure. Stakeholder theory suggests that CSED is a concern of managers; and that managers are accountable to all company stakeholders, not only to shareholders and creditors (Albassam, 2014). Accordingly, in this study stakeholder theory will be one of the theories that will be used when analysing CSED practices in Saudi listed companies.

Stakeholder theory has two branches, managerial and normative, the managerial branch is concerned with the power of the stakeholder. When planning and disclosing, companies consider how important it is to bring the companies achievements to the Stakeholders attention. In this case companies group their stakeholders according to their power to satisfy their demands, taking into account the scarcity of the recourses that they have available (Deegan and Unerman, 2006). The other branch is ethical (normative), and is concerned with informing stakeholders about the companies' actions regardless of their authority. Disclosure is motivated by the companies responsibility as a base (Deegan and Unerman, 2006). Accordingly, in this study stakeholder theory will be one of the research theories in investigating CSED practices in Saudi listed companies, specifically ethical (normative) branch of stakeholder theory where CSED can be investigated in Saudi listed companies regardless of their power.

In Saudi Arabia, the 2006 Saudi Corporate Governance Codes includes provisions related to the stakeholders' rights and social responsibility (see Article 10)[11]. Saudi companies are required to take into consideration the needs of stakeholders such as government, employees and the local society as well as shareholders. In addition to

[11]Article 10 in Saudi Corporate Governance Codes includes stakeholder rights in sub-section " e) *Outlining a written policy that regulate the relationship with stakeholders with a view to protecting their respective rights; in particular*" (Authority, 2006)

the Islamic concept of 'Zakat'[12] which encourages companies to be socially responsible and contribute positively to society.

Stakeholder theory has been widely used in CSED literature by numerous studies (Belal and Owen, 2007; Branco and Rodrigues, 2007; Chan et al., 2014; Garriga and Mele, 2004; Menassa, 2010; Michelon and Parbonetti, 2012; Ruf et al., 2001). Belal and Owen (2007) based their research on stakeholder theory, legitimacy theory and political economy theory in investigating corporate social disclosure. According to Menassa (2010), disclosing corporate responsibility to their stakeholder group is a significant strategy that companies consider in managing the relation with stakeholders. Michelon and Parbonetti (2012) have also used stakeholder theory in examining the relationship of corporate governance mechanisms and corporate social responsibility disclosure. In a recent study Chan et al., (2014) also used stakeholder theory in addition to legitimacy theory to investigate the association between corporate social responsibility and corporate governance and how companies use both mechanisms to enhance relations with stakeholders.

Stakeholder theory is one of the theories that are used in explaining CSED in this research, as well as in previous research; it focuses on stakeholders' expectations and needs. Legitimacy theory is another theory used to explain why companies may decide to report social and environmental information which is discussed in the following sub section.

3.4.2 Legitimacy theory

Legitimacy theory is one of the theories that is widely used in corporate social and environmental disclosure. This theory considers the company as a part of a broader social system, which is influenced by and has influence on other parties (Islam and Deegan, 2008). According to Suchman (1995, p. 574) legitimacy is: *"a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate*

[12]'Zakat' is the second pillar in Islam where Muslim people who are financially capable pay 2.5% to specific groups of people; it is an Islamic social tax (Kamla *et al*., 2006). Companies are also required to pay Zakat to the government as a type of tax.

within some socially constructed system of norms, values, beliefs, and definitions". Similar explanation by Lindblom (1993, p. 2, cited in Gray et al., 1996) states that legitimacy is " *..a condition or status which exists when an entity's value system is congruent with the value system of the larger social system of which the entity is a part of*". Both definitions assert that companies are part of a larger social system in which they ensure they are perceived as operating within the society expectations. When a disparity, actual or potential, exists between the two value systems (company and society), a threat to the entity's legitimacy occurs. In other words, legitimacy is the reason behind companies engaging in social and environmental disclosure to comply with society's expectations. Norms, values and beliefs represent the expectations of the society and they are changing through time due to changes in some factors (Islam and Deegan, 2008). These factors include regulatory institutions, the increase in the social awareness, pressure from interest groups, the influence of the media, the pressures form educational institutions and NGOs (Campbell, 2007; Elsbach and Sutton, 1992; O'Donovan, 2002; Tilt, 1994). The changes in norms and values throughout the time will lead to change in the social contracts between the company and the society, as a result, companies change consequently to maintain legitimacy.

Legitimacy theory is a system-oriented theory which considers organisations as part of a larger social system in which they operate in (Cho, 2009; Gray et al., 1995). Therefore this theory focuses predominantly on the concept of company and society contract; companies are operating in society through a social contract to organize the activities of the companies and relate them to the society's values, norms and beliefs (Reverte, 2009). The social contract organises the relation between the company and society, what the society expect from the company as well as what companies are expecting from the society (Cho and Roberts, 2010; James Guthrie and Parker, 1989; M. Reg Mathews, 1993; Patten, 2002b). In this case, companies have to show society that they are operating in accordance with the terms of the social contracts by disclosing information about their activities and actions, such as social and environmental information, as often as possible in order to prove their legitimacy (Abbott and Monsen, 1979; Brown and Deegan, 1998; Deegan et al., 2000; Deegan and Unerman, 2006; Gray et al., 2001; R. Gray et al., 1995; James Guthrie and Parker, 1989; Hooghiemstra, 2000; Menassa, 2010; Roberts, 1992). The social contract incorporates two types of norms, values and beliefs; explicit norms, values and beliefs which are clearly codified and implicit norms, values and beliefs which are non-codified (Shocker and Sethi, 1973). Incorporating explicit and implicit norms and values, which are society expectations, while companies operating aiming to satisfy these expectations is what legitimacy is about. The diagram presented below (Figure 3.1) by O'Donovan (2002) explains organisational legitimacy.

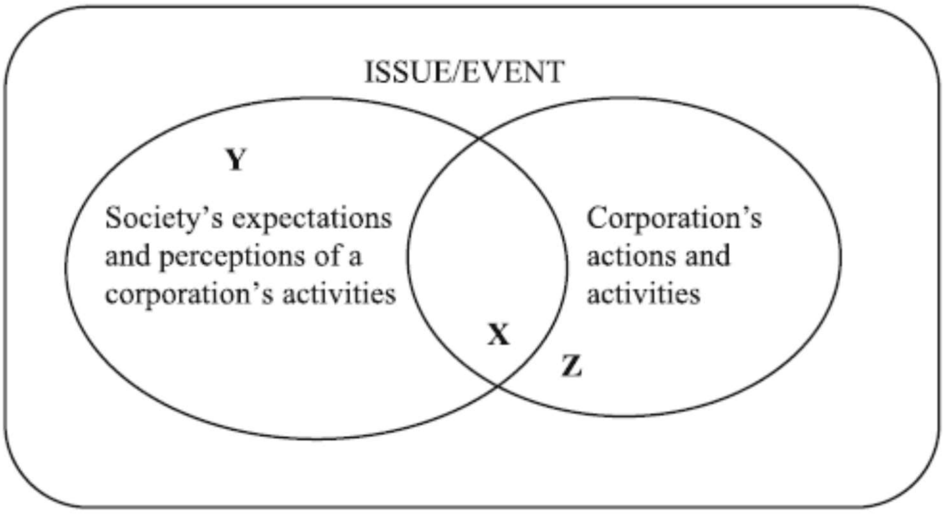

Figure 3.1: Organisational Legitimacy. [Source: O'Donovan (2002)]

The diagram above shows the relation between company's activities to a specific issue or event which is presented as circle Z, and the society's expectations and perceptions of companies' activities related to the same issue or event presented in circle Y. If the company satisfies society demands then the area X arises and this is organisational legitimacy. On the other hand, if the company's activities and actions didn't match the expectations of the society, a legitimacy gap or illegitimacy occurs (Ali, 2014; O'Donovan, 2002). Since society expectations about company change and also company's activities related to social issues or events change, legitimacy gap (or illegitimacy) changes as well because both are related. Legitimacy gap could be a result of the change in societal expectation, the change in companies' activities is not aligned with the change in the societal expectations (Deegan, and Unerman, 2011). Additionally, companies are not informing the society with activities that they did to satisfy societal expectations and societal awareness of hidden negative information about the company which dissatisfy the society (Deegan and Unerman, 2011).

Companies may choose to disclose social and environmental information as a response to the society expectation which is part of a legitimation process (Gray et al., 1995; Roszaini M. Haniffa and Cooke, 2005). Lindblom (1993, cited in Gray et al., 1996) has presented four legitimation strategies which could explain how companies actions can aim to gain, maintain or repair legitimacy (Suchman, 1995). The four legitimacy strategies are as follow: first strategy is to notify stakeholders about the companies' changes and improvements in activities and actions aiming to satisfy public expectations. Second, company try to change stakeholders' perception about its performance related to specific event. Third, company seeks to distract stakeholders' attention from an event or issue of worry to another event or issue. Fourth, company aim to change societal expectations about its activity by representing that this specific expectation is not applicable. It can be argued based on Lindblom (1993, cited in Gray et al., 1996) strategies that corporate social and environmental disclosure could be used to inform and educate stakeholders and also to change stakeholders' perceptions and hide the reality.

In addition to the legitimation strategies provided by Lindblom (1993, cited in Gray et al., 1996), Organisational legitimacy model of legitimacy had been identified by Tilling and Tilt (2010) based on the works of Ashforth and Gibbs (1990) and Suchman (1995). They introduced six different phases of legitimacy which are; establishment, maintenance, extension, defence, loss and disestablishment. According to both Tilling and Tilt (2010) and Belal and Owen (2015), over time and based on the changes in company actions and activities as well as society expectations, firm's legitimation strategies might move from one phase to another. The stages are discussed as follow: establishment, it is the stage where companies aim to gain or build legitimacy from stakeholders when the company is still in its early starting stages. At this stage, company intention to ensure that its actions and activities are aligned with the society's expectations, otherwise the company will lose its legitimacy. Maintenance is another phase which is less complicated than the establishment stage, since it is easier to maintain legitimacy after gaining society acceptance it. At this stage, less social and environmental disclosure is required than the establishment stage.

Extension is the phase that company goes through when starting a new activity as a result of changes in stakeholders' expectation. Companies need to report more in this phase to enhance legitimacy. Repair or defence phase has taken the vast attention of social and environmental accounting researchers (Belal and Owen, 2015). This stage is a result of legitimacy gap, when company's legitimacy is threatened, thus a legitimacy repair is needed and this will lead to an increase in social and environmental disclosure (Patten, 1992). Loss phase occurs due to powerful pressures from the media or new regulatory control (Tilling, 2004). This stage indicates that the company has low level of legitimacy and that it needs to change in its strategy of social and environmental disclosure. Abandonment phase, in this phase companies are rebuilding their legitimacy. This stage usually comes after the loss stage where companies decide to start all over again aiming to regain their stakeholders' acceptance (Craig Deegan, 2014; Tilling and Tilt, 2010). Companies at this stage are more cautious aiming to proceed successfully this time in establishing their legitimacy by learning from the previous experience.

Based on the above discussion, the company is required to communicate with stakeholders in each of the legitimation strategies and in each legitimacy phases (Gray et al., 1995; Lindblom, 1993, cited in Gray et al., 1996; Suchman, 1995). One way of communicating with stakeholders is corporate social and environmental disclosure which is considered to be a tool to show company's legitimacy strategies (Branco and Rodrigues, 2007). Companies disclose social and environmental information aiming to establish, maintain or repair legitimacy (Cho and Roberts, 2010; Cho et al., 2010; Dowling and Pfeffer, 1975). This is done by influencing stakeholders' views and persuading them that the company meets their expectations, even if it didn't essentially meet all the expectations, and this is suggested by legitimacy theory (Branco and Rodrigues, 2007; Deegan, 2002a; Deegan and Rankin, 1996; Mathews, 1995).

Legitimacy theory also comprises the idea that there is a social pressure on companies to report their social and environmental information, for example companies will disclose more social information under more social pressure (Cho and Roberts, 2010). According to Deegan (2002a) and O'Donovan (2002), managers use information in annual reports to send messages to society for example they use corporate social and environmental disclosure as a tool to improve corporate image. Therefore, corporate social and environmental reporting is a reflection of companies response to economic, social, political and environmental aspects as it shows how companies are legitimate to exist and operate (Guthrie and Parker, 1989; Hogner, 1982). Social and environmental disclosure plays a vital role in justifying companies' legitimacy (Cho, 2009; Deegan and Rankin, 1996)

Legitimacy theory has been widely used to explain corporate social and environmental disclosure practice in a vast amount of literature, see for example (Chan et al., 2014; Deegan, 2002a; Deegan and Gordon, 1996; Hackston and Milne, 1996; Neu et al., 1998; O'Donovan, 1999, 2002; Patten, 1992). Hogner (1982) found evidence that society's expectations of the companies behaviour affect social disclosure. Another study by Deegan and Gordon (1996) found that there is a relationship between the level of corporate environmental disclosure and the legitimating procedures that companies go through to be legitimate. In their study, they used annual reports in investigating CSED. Additionally, Brown and Deegan (1998) examines how annual reports can be used as an instrument by the organisation's management to legitimise its existence and business. Gray and Bebbington (2000) argue that companies disclose social and environmental information that will add to their legitimacy and that it is a voluntary practice "accountability mechanism".

Four studies had been analysed by Gray (2002), including O'Donovan (2002), Milne and Patten (2002) , O'Dwyer (2002) and Deegan et al. (2002). He stated that the findings of the four papers are consistent with legitimacy theory. He discovered that managers decide to report information about their social and environmental practices for legitimacy purposes. In addition, Hopwood (2009) stated that organisations use social and environmental reporting in building their image, which helps in constructing legitimacy. Another research by Cho et al. (2012) examines companies choices in the amount of capital spent in environmental disclosure using legitimacy theory as one of the theories to explain social and environmental disclosure. Moreover, Belal and Owen (2007) based their research on legitimacy theory as well as stakeholder and political economy, in order to investigate corporate social disclosure. In a more recent study Belal and Owen (2015) examine the motivations for the development of stand-alone corporate social responsibility (CSR) reporting in

Bangladesh. Legitimacy theory is the base of this study as they use the lens of it in explaining the stand-alone CSR reporting process and how it gives the subsidiary a formal space and legitimise its activities in Bangladesh.

Cho and Patten (2007) have implemented legitimacy theory in their research when analysing environmental disclosures. Legitimacy theory has also been used by Samkin and Schneider (2010) in a study in New Zealand. The study aims to explain the benefit of accountability and reporting such as gaining credibility. Khan et al.(2013) have also adopted legitimacy theory as a framework to examine the relationship between corporate governance and the extent of corporate social responsibility (CSR) disclosures using Bangladeshi companies' annual reports. The results suggest corporate governance mechanisms in addition to the stakeholder groups' pressure influence CSR disclosure practices to ensure companies' legitimacy. In their study Kamal and Deegan (2013) make a significant contribution to the empirical literature since they focus on a new area which combines corporate governance with corporate social and environmental responsibility when investigating the companies' disclosure. Their study is based on legitimacy theory in explaining corporate governance-related social and environment disclosure, the results of the study have proven that companies disclose social and environmental practices because of societal pressure and in order to gain legitimacy.

In Saudi Arabia, as traditional Islamic country, stakeholders and the society expect companies to operate within the traditional Islamic framework. Companies are expected to take into account Saudi Islamic norms and values operating in order to gain or maintain societal legitimacy. Contributing positively to society in the form of `Zakat`[13] or `Sadaqah`[14], group privileges is more important than individual rights and saving the environment are all Islamic values that companies should not neglect when operating. There is an increased pressure on companies from media and social groups

[13] 'Zakat' is Islamic social tax: every Muslim individual and company must pay 2.5% of their wealth towards a charitable cause, such as making donations to the poor and needy (Kamla *et al*., 2006). Companies are also required to pay Zakat to the government as a type of tax.

[14] `Sadaqah` as described in Qura`an is any voluntary contribution good works, alms, charity (Sadeghzadeh, 1995)

to be socially responsible, particularly after globalization. As a result, companies report more information about their social activities to meet society expectations to secure this legitimacy.

Since this study is investigating CSED in Saudi listed companies, legitimacy theory is the main theory that will be used as it is concerned with society in general and the relationships between companies and their relevant stakeholders and society. This study uses legitimacy theory in examining corporate social and environmental disclosure similar to Macarulla and Talalweh (2012) study. Their study examines the level of corporate social responsibility (CSR) disclosure in Saudi listed companies. The theory will enable the study to later examine the findings on CSED in Saudi Arabia. Despite the strength of stakeholder theory and legitimacy theory in explaining the companies' response to external pressure and expectations of relevant stakeholders and the society, they fail to embrace institutional contexts where the firm is operating. These institutional contexts are said to influence companies CSR disclosure decisions. For this reason, institutional theory is used in this study to cover all other elements, including economic and political aspects, and will be discussed in the next sub section.

3.4.3 Institutional theory

Institutional theory takes into account economics and political aspects, in addition to social aspects, which affect organisations actions and activities (Campbell, 2007; Walsh et al., 2003). Institutions are common social structures that perform pressure on companies to take actions or to do particular activity. These social structures are known as regulatory and competitive norms and rules, social values, cultural, and routine practices. According to Scott (1995), institutional theory is concerned with these social structures and how it can affect the companies' behaviour and actions. Companies should follow environmental and societal rules and regulations and include them in their activities and accounting practices such as corporate social and environmental disclosure (DiMaggio and Powell, 1983; Scott, 1995).

According to Deegan and Unerman (2006) institutional theory combines stakeholder and legitimacy theories when explaining the reason behind companies engaging in corporate social responsibility as a response to social, environmental and institutional pressures. As well as understanding companies accounting and reporting practices such as corporate social and environmental disclosure and how companies use them as a tool of organisational legitimacy (Deegan and Unerman, 2006). Dillard et al. (2004) discussed institutional theory from an accounting based study point of view, stating that social culture and environment are affecting the practice of accounting. Institutional theory considers the organization as a part of larger social system (see Amran and Devi, 2008; Amran and Haniffa, 2011; Campbell, 2007; Jamali and eville, 2011), It also explains why companies which are operating in the same industry tend to disclose similar social and environmental issues, which will be discussed below (DiMaggio and Powell, 1983).

Institutional theory has three different approaches, Old Institutional Economics (OIE), which differs from New Institutional Economics (NIE) and New Institutional Sociology (NIS). While (OIE) is concerned with "*the institutions that shape the actions and thoughts of individual human agents*" within an organisation, both (NIE) and (NIS) are concerned with the organisations environmental influence (Scapens, 2006, p. 11). NIE is regarding "*the structures used to govern economic transactions*" (Scapens, 2006: p.11), NIE takes into account external factors to observe the organisations' governance (Zhao, 2011). NIS is the branch of institutional theory that is concerned with social and cultural factors affecting organisational actions. In this research Institutional theory, NIS branch will be adopted in order to investigate CSED and the factors affecting it in Saudi Arabia.

To understand more how institutional theory can describe CSED institutional theory alternative dimensions will be explored. Institutions produce the reason for a particular behaviour or isomorphic of a firm, institutions can be of three types: regulatory, normative, and cognitive (Scott, 2001). Regulatory institutions include rules and regulations, these rules and regulations include two types. Hard rules which are set by the state and can apply coercive pressure on companies to perform specific action or activity, and soft rules which are set by industry associations and these are voluntary to adopt (Campbell, 2007; Marquis et al., 2007). As a result, companies which are operating in an environment with strict regulatory system are more likely to be socially responsible and may disclose more social and environmental information. Companies may disclose social and environmental information aiming to comply with institutional rules and regulation (government and industry).

The second type of institutions is normative institutions which provide the norms: *"desirable ways of acting and being"* and values: "*what is desirable/socially acceptable to pursue"* (Bebbington, Higgins, and Frame, 2009, p. 5). Society norms and values are the standards for appropriate corporate behaviour set by different institutions such as media, professional associations, NGOs, educational institutions, and other social institutions (Muthuri and Gilbert, 2011). These standards set the socially responsible behaviour as part of corporate behaviour (what is appropriate to do related to social and environmental responsibility) to gain legitimacy. Companies tend to disclose more social and environmental information if they operate in an environment where normative institutions are active. They do so to meet normative institutions expectations and to gain normative position.

Cognitive is the third type of institutions, they include cultural values, ideologies, and identities as well as common aspects to companies' socially responsible behaviour (Muthuri and Gilbert, 2011). According to Bebbington (2009) these aspects are not easy to perceive. Additionally, understanding these aspects depends on managers' perception. The three previous institutions, regulatory, normative, and cognitive, can create isomorphic pressure on companies to disclose social and environmental information as shown in Figure 3.2 and will be discussed in the next sub-section.

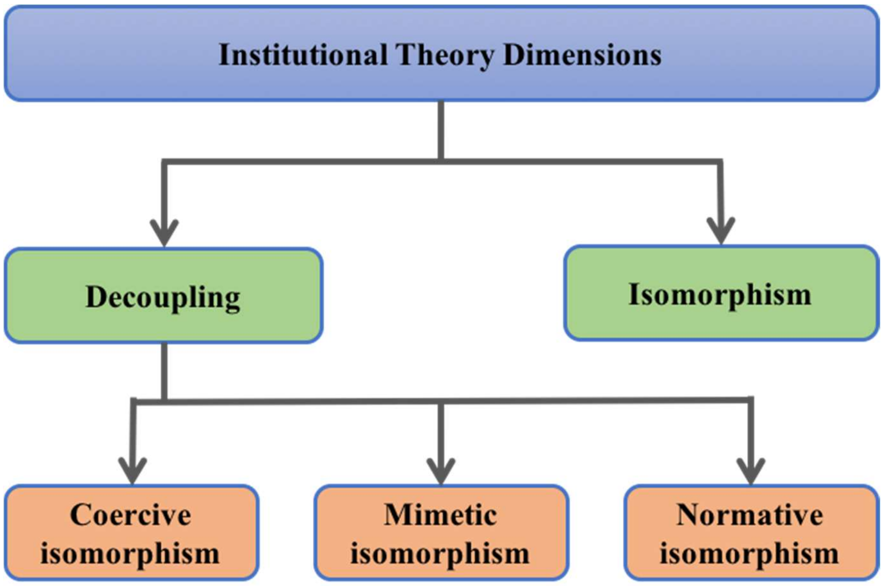

Figure 3.2: Institutional Theory dimensions

Isomorphism

This aspect illustrates the implementation of institutional practices by companies such as the social and environmental disclosure process and the change in the organisations actions related to these institutions (Dillard et al., 2004). According to DiMaggio and Powell (1983), isomorphism is the action that an entity of the society take in order to be similar to others that are operating in the same environment. Three types of isomorphic pressure can be created by institutions: coercive, mimetic and normative (DiMaggio and Powell, 1983).

Coercive isomorphism demonstrates the effect of powerful stakeholders such as government, media and institutional investors on changes in institutional practices by Organisations. Since formal and informal pressure by stakeholders is the reason for companies changes in institutional practices (DiMaggio and Powell, 1983). Organisations take into account stakeholders especially those who have a significant effect on their social responsibility practices and disclosure. They will disclose what concerns their stakeholders, for example economic, social, environmental and ethical values. This process is associated with the stakeholders theory which concerns fulfilling stakeholders demands by CSED (DiMaggio and Powell, 1983).

Mimetic isomorphism is related to a competitive advantage in relation to legitimacy as companies try to improve their institutional practices to be similar to their competitors or to adopt a superior policy (Jeffrey Unerman and Bennett, 2004). Similar companies operating in the same industries usually have similar policies and processes created by top companies in the industry. Therefore, the industry itself can be an aspect of mimetic isomorphism. Each company is going through this process called "mimetic isomorphism" to prove their legitimacy in operating in the society (DiMaggio and Powell, 1983).

Normative isomorphism is associated with professionalization and socialization pressure to gain normative position (DiMaggio and Powell, 1983) for example, accounting standards in corporate reporting. In this case the company is expected to produce accounting reports, as an institutional practice, which follows accounting standards (DiMaggio and Powell, 1983). Normative isomorphism can be resulted from three sources which shape the behaviour of professional managers and staff: educational institutions, professional networks, and trade associations (DiMaggio and Powell, 1983). As an example, companies choose to perform some practices such as educating and training employees, sponsoring social and sports events, establishing schools and colleges, donations to meet normative standards and gain normative position. In addition to isomorphic pressures, institutional theory also includes a decoupling aspect which will be discussed in the next sub-section.

Decoupling

This perception of institutional theory explains the conflict which may arise between the image that the companies' managers are trying to exhibit by particular institutional practices or processes and the actual practices and processes of these companies (Dillard et al., 2004). This could be identified when companies try to report social and environmental activities in their report without any change in the actual practices to enhance the companies' image, and show their legitimacy. This is related to legitimacy theory as well and it can be detected by investigating the actual corporate social and environment responsibility practices and compares it to what had been disclosed by the companies.

Institutional theory has been used as the foundation for a significant number of studies. One of these studies is Islam and Deegan (2008) who claim that they base their study on institutional theory in order to examine in detail the external pressures and their relation to disclosure polices in developing countries and applied it in Bangladesh. They state that institutional theory explains the external pressure from different stakeholders on organisations to disclose social and environmental activities to gain societies legitimacy. Institutional theory supports their findings, indicating that the pressure from specific stakeholder groups as well as the industry's social disclosure polices on the Bangladeshi clothing industry have a reflection on social reporting in their annual reports. Another study that uses institutional theory as a framework is Bebbington et al (2009), they run semi-structured in-depth interviews with organisations reporting social information. The findings of this study indicate that organisations decide to disclose social information to improve their reputation, image and value.

Amran and Haniffa (2011) have also used institutional theory to interpret their study results after conducting interviews aiming to investigate determinants of companies' sustainability reporting in Malaysia. The study results show that isomorphism's three mechanisms, the coercive, the normative and the mimetic apply to organisations sustainability reporting in Malaysia. Both studies, Chen and Bouvain, (2009) and Muthuri and Gilbert (2011) have implemented institutional theory while analysing corporate social responsibility reporting and the effect of global CSR standards on firms reporting. They found that global membership has an effect on some areas of CSR reporting whilst different institutional arrangements in each country have a significant effect. Another study by Caprar and Neville (2012) proposes that institutional and cultural perspectives can address companies' adoption of sustainability in a better way. In a recent study by Campopiano and De Massis (2014) institutional theory is used to compare CSR reports of 98 large Italian firms owned by families and firms not owned by families. The grounded theory analysis informs and contextualizes several differences in the type and content of corporate social responsibility reports of family and nonfamily firms.

In the context of institutions isomorphism, there are a number CSED studies that mentioned the types of isomorphism (Rahaman et al., 2004; Amran and Devi, 2008). The results from a study by Amran and Devi (2008) found that the reason behind Malaysian companies disclosing social responsibility information is the pressure from the government regulations. In a similar study, Rahaman et al. (2004) found that a

Ghanaian company (Volta River Authority) disclosed environmental information to comply with the requirements of The World Bank. Both studies show that both studies found that coercive isophorism is the type of pressure that companies are facing which lead to CSR disclosure.

Regarding mimetic isomorphism, studies support the argument that country of resident and industry affect companies' environmental disclosure (Gray and Bebbington, 2000; Vourvachis and Woodward, 2015). Additionally, companies might be disclosing social and environmental disclosure due to pressure from competitors that are operating in the same industry. Studies related to the third type of isomorphism which is normative isomorphism, Amran and Devi (2008) found that two factors of professionalism which are professional education and professional networks perform normative pressure on companies to do particular actions.

In Saudi Arabia, CSED is generally voluntary practice. However, considering certain CSR activities could be considered as a form of obligatory by the Saudi government. For example, as mentioned previously in **Error! Reference source not found.**, the minimum wage, working hours, job nationalisation and retirement scheme are several aspects that companies report as their social activities but there is a legal enforcement on companies to respond to these aspects. This study aims to investigate CSED in Saudi Arabia and its determinants which are firm characteristics and corporate governance mechanisms therefore, institutional theory is one of the theories used in explaining CSED. As this theory justifies the practice of CSED and how it is considered as a response to the external environmental pressure represented in different aspects which have been mentioned previously in this sub-section. In addition to the previous discussed theories, stakeholders, legitimacy and institutional theories, agency theory is included as well in this study. This theory will be discussed in the next sub section, as this study investigates how firm characteristics and corporate governance mechanisms detriment the level of CSED.

3.4.4 Agency theory

Agency theory primarily concerns the relation between shareholders and managers by aligning the interests of managers (agents) with shareholders (principles). Jensen and Meckling (1976, p. 308) referred to the agency relationship as "a contract under which one or more persons (the principals) engage another person (the agent) to perform some service on their behalf, which involves delegating some decision-making authority to the agent". This relation provides separation of ownership and management (Fama and Jensen, 1983; Jensen and Meckling, 1976). Agency theory concerns with reducing agency costs which arise from the problems of information asymmetries in markets (Morris, 1987). According to Fama and Jensen (1983) "agency costs include the costs of structuring, monitoring, and bonding a set of contracts among agents with conflicting interests, plus the residual loss incurred because the cost of full enforcement of contracts exceed the benefits" (Fama and Jensen, 1983). Therefore, companies use corporate governance mechanisms to reduce agency costs as well as mitigate managerial opportunism, which lead to improved voluntary disclosure and financial performance (Fama and Jensen, 1983; Haniffa and Hudaib, 2006; Jensen and Meckling, 1976; Khan et al., 2013; Leftwich et al., 1981; Ntim and Soobaroyen, 2012; Solomon, 2010).

Agency theory suggests the same idea that companies could reduce agency costs by using a compensation plan or by providing voluntary disclosure such as social and environmental disclosure. Within this context, agency theory propose that companies with higher level of leverage tend to disclose more voluntary information aiming to reduce their agency costs (Jensen and Meckling, 1976; Ntim and Soobaroyen, 2013). By reporting social and environmental information, the companies are considered to be more accountable to their stakeholders and to the society and this could enhance the value of the firm. Additionally, engaging in social and environmental activities enhance companies profitability and consequently reduce agency conflict between management and shareholders (Sun et al., 2010).

Agency theory is one of the theories that is used in corporate social and environmental disclosure studies specifically when investigating the effect of corporate governance mechanisms on the level of CSED (Filatotchev and Boyd, 2009). More specifically, agency theory suggests that corporate governance set legal contracts between shareholders and managers to monitor managers. For example, one of the corporate governance mechanisms which plays a vital role in controlling and supervising the company's management as well as providing strategic guidelines is the corporate board of directors. A reduction in the number of executive board members; could enhance the board's independence (Al-Janadi et al., 2013; Solomon, 2010). Furthermore, reduces management opportunism (Jensen and Meckling, 1976). This occurs due to the separation of ownership and control by aligning the interests of managers (agents) in the firm with shareholders' (Hoque, 2006). Motivating managers (agents) in order to work in alignment with shareholders' interests is argued to reduce agency problems by reducing opportunistic managers' behaviour. This can be achieved in many ways such as introducing incentives and it is argued that outside independent directors may have more skills and knowledge which will be an advantage for the company (Craig Deegan, 2006).

It is widely believed that the main concern of company's shareholders is maximizing the value of the company and this is what they expect company's managers to aim for. On the other hand, there are other stakeholders whom the company could not run its business without them such as employees, customers, creditors, suppliers and the government and they also have their expectations from the company. Additionally, managers have their own interests that to an extent could conflict with shareholders' interests. The duty of the managers in that case is to satisfy as much stakeholders as they can include shareholders considering their interests. Corporate governance system, as mentioned in the previous paragraphs, is to align shareholders interest with managers' interest as well as to reduce agency costs which might arise from the conflict of interests, additionally it reduces managers opportunistic. In this regards, Jensen (2002) has suggested a relation between value maximization and stakeholder theory, he called it " enlightened value maximization". He argued that enlightened value maximization reduces the conflict between value maximizing and stakeholder theory and it aims to improve management, organisational governance, and performance. He claims that value maximization is a long-run objective which will be achieved throw stakeholders. Since without success relation with company's stakeholders such as employees, customers, suppliers and the government, the company will not be able to maximize its value or even survive (Jensen, 2002).

In the context of corporate social and environmental disclosure, according to Jamali et al. (2008) there are some Preliminary Links between corporate governance and corporate social responsibility as shown in Table 3.1 below. In the broader corporate governance conception considers all key stakeholders which is the same objective as stakeholders' approach of corporate social responsibility. Moreover, both corporate governance and corporate social responsibility assume that companies hold stakeholders responsibilities as a form of accountability to gain trust and legitimacy (Page, 2005 as cited in , Jamali et al., 2008). As a result, companies report social and environmental information to show they are taking into account stakeholders. Additionally, CSED can be considered as a strategy to fill the legitimacy gap between shareholders and the management (Haniffa and Cooke, 2005). And this is what agency theory suggests that CSED should reduce the gap between owners and management interests consequently, reduce agency costs. By reporting social and environmental information the board of directors will ensure that the management is performing in the best interest of not only shareholders but also other stakeholders. Additionally, the board of directors, particularly non-executive directors, will ensure that the company is responding to societal expectations.

Agency theory has been used as a base of a significant number of studies investigating corporate governance (Filatotchev and Boyd, 2009). Barako et al. (2006b) have used agency theory in examining the association of corporate governance practices with the voluntary disclosures in Kenyan companies' annual reports. Jo and Harjoto (2012) also based their study on agency theory in their examination of the association between corporate governance and corporate social responsibility (CSR), using a large US sample. The results indicate a positive correlation between corporate governance and corporate social responsibility. Similarly, Samaha et al. (2012) based their study on agency theory to investigate the determinants of corporate governance voluntary disclosure in Egypt. In Saudi Arabia, Albassam (2014) used a multi-theoretical framework, including agency theory, to analyse corporate governance reforms in Saudi Arabia and their effect on the level of voluntary disclosure. In a similar study in Saudi Arabia, Habbash (2015) investigated the influence of corporate governance on corporate social responsibility disclosure using agency theory to justify the results of the study.

Table 3.1: Preliminary Links between Corporate Governance (CG) and Corporate Social Responsibility (CSR).

Source: Jamali et al. (2008, p:446)

Corporate governance	CSR
• Broader CG conception: Entails due regard to all stakeholders and ensuring that firms are answerable to all their key stakeholders (Dunlop, 1998; Kendall, 1999)	• Stakeholder approach to CSR: Corporations are the crux of a complex web of stakeholder relationships and have an obligation or responsibility to these different stakeholders (Freeman, 1984)
• Narrow CG conception: Ensuring accountability, compliance, and transparency (Keasey and Wright, 1997; MacMillan et al., 2004)	• Internal dimension of CSR: Corporations should accord due diligence to their responsibility to internal stakeholders addressing issues relating to skills and education, workplace safety, working conditions, human rights, equity/equal opportunity, and labour rights (Grosser and Moon, 2005; Jones et al., 2005)

In Saudi Arabia, corporate governance regimes have developed over the years as the government has paid more attention to reforming the corporate governance codes. In 2006 the government issued the Saudi Corporate Governance Codes (SCGC) and this step is considered a foundation of the reforms (AlNodel and Hussainey, 2010; Robertson, Diyab, and Al-Kahtani, 2013). According to Albassam (2014), the aim of SCGC is to improve companies' board of directors performance, responsibility, accountability and transparency in aligning the conflicts between mangers and shareholders. SCGC is considered significant in a country like Saudi Arabia where the ownership concentration in Saudi listed companies is relatively high (AlNodel and Hussainey, 2010) and could give power to the main shareholders as a consequence of the effect of the rights of small shareholders (Baydoun et al., 2012). Ownership concentration could create a conflict of interest between shareholders, which would give greater power to large shareholders who wish to control the performance of management (Haniffa and Hudaib, 2006). Moreover in a traditional community such as Saudi, assigning friends and relatives to management, regardless of their qualifications and abilities, used to be a common issue, and these practices could affect the company's performance and disclosure (Haniffa and Hudaib, 2006).

Therefore, the application of agency theory is required in examining CSED in Saudi Arabia with regards to firm characteristics and corporate governance mechanisms.

After discussing each theory and how it is related to this study, a theoretical approach of this research will be discussed in the following section.

3.5 Research theoretical approach

Corporate social and environmental disclosure is a complex multi-faceted issue which is challenging to be explained using a single theory and should depend on a multi-theoretical framework (Cormier et al., 2005; Tagesson et al., 2009). Hence, a multi-theoretical framework will be applied in conducting this study to help in understanding the issues related to CSED. These theories will include the four theories discussed in the previous sections. These are the most commonly used theories in key studies that investigate the motivations behind corporate social and environmental disclosure (C. Deegan and J. Unerman, 2006). According to Garriga and Mele (2004) theories related to corporate social and environmental disclosure are overlapping and while no certain theory can completely explain all the motives for CSED, system-oriented theories indicate that organisations should take into consideration the social, political and economic factors such as norms, values, beliefs, regulations and standards when planning and disclosing. This explains that companies might disclose social and environmental information as a response to the previous factors (social, political and economic). Conjointly Agency theory is one of the most significant theories in explaining the reason why companies report social and environmental information with regards to agency costs that may arise from interests' conflicts.

Starting with stakeholder theory is one of the system-oriented theories that is used in this study to address the phenomena of CSED. The theory is concerned with satisfying powerful stakeholders' demands and expectations to gain or maintain the support of stakeholders. This theory is associated with CSED as it aims to satisfy stakeholder groups and society at large. Legitimacy theory is the principal theory to be used when addressing the issue of CSED as it explains the reason behind the use of CSED by companies to signify legitimacy to their stakeholders.

Legitimacy theory emphases on society's expectations, CSED shows the alignment between the corporate social and environmental disclosed information and the society's expectations aiming to gain or maintain or repair legitimacy. Additionally, CSED helps to improve organization's image and can be used as a positive signifier to stakeholders and society at large. This theory is based on the notion of social contract that is formed between organisations, stakeholders and the public. Social contracts help to organise the expectations of all sides, namely organisations, stakeholders and society.

Institutional theory is similar to stakeholder and legitimacy theories in the way it explains the effect of social values, norms and rules (i.e., social structures) on the actions taken by organisations. It focuses on organisational practices such as CSED in response to coercive, normative, and mimetic pressures from institutions such as regulatory, normative, or cognitive. Companies report social and environmental information aiming not to be different from other companies operating in the same environment. Accordingly, this theory will be included in this research theoretical approach to justify the practice of CSED in Saudi Arabia and to give explanation to the study results.

On the other hand agency theory focuses on reducing agency costs which arise from the problems of information asymmetries in markets (Morris, 1987). Therefore, companies use corporate governance mechanisms to reduce agency costs as well as mitigate managerial opportunism, which lead to improved voluntary disclosure including social and environmental disclosure and financial performance (Fama and Jensen, 1983; Haniffa and Hudaib, 2006; Jensen and Meckling, 1976; Khan et al., 2013; Leftwich et al., 1981; Ntim and Soobaroyen, 2012; Solomon, 2010). Managers may choose to use CSED and publish more detailed information to reduce agency cost (Easterbrook, 1984; Jensen and Meckling, 1976; Rozeff, 1982), particularly when they need to raise funds. Since this study aims to examine the determinants of the level of CSED and some of corporate governance mechanisms are included as CSED determinants, agency theory will be included in the study's theoretical approach.

Multi-theoretical approach is consistent with the suggestions of CSE disclosure previous researchers such as Gray et al. (1995), Islam and Deegan (2008) Deegan and

Unerman (2008), and Deegan and Unerman (2011). They argued that the three theories (stakeholder, legitimacy and institutional) are complementary in explaining corporate social and environmental disclosure. While stakeholder theory demonstrates organisations responses to stakeholder demands, legitimacy theory addresses how organisations disclose social and environmental information in order to gain, maintain or repair their legitimacy to their stakeholders and the wider society. In another study in Qatar, Naser et al. (2006) have applied a multiple theoretical framework including agency theory, legitimacy theory and stakeholder theory to investigate the cause of the variation in the level of corporate social disclosure using the annual reports of 20 Qatari listed companies. In a recent study Gallego-Ã lvarez and Quina-Custodio (2016), have used the same theoretical framework that is used in this study, agency theory, stakeholder theory, legitimacy theory and institutional theory in analysing the voluntary disclosure of CSR in different countries (France, Portugal, Spain, UK and USA). This combined theoretical approach gives a deep understanding of CSED more than using one particular theory only. In Saudi Arabian context Macarulla and Talalweh (2012) also have used stakeholder theory and legitimacy theory to examine the level of CSR disclosure in the annual reports of the 134 Saudi listed firms 2008 and investigating the variables affecting it. Albassam's (2014) study has been conducted in Saudi Arabia also applies a multi-theoretical framework including stakeholder theory, agency theory and other theories to analyse the new reform of Saudi Corporate Governance codes and how this affect the level of voluntary disclosure.

The previous discussion, dictates that a multi-theoretical approach is more appropriate to this research to gain a higher level of justification and explanation~~s~~ when examining and explaining CSED practice in Saudi Arabia. Thus, this study also follows the previous studies in applying multi-theoretical approach in analysing CSED in Saudi Arabia. It is argued that using joint consideration of more than one theory provides comprehensive perspective for explaining corporate social and environmental disclosure and its determinants in Saudi Arabia.

Table 3.2: Factors interrelation to each theory used in the study.

Explanatory factor	Stakeholder theory	Legitimacy theory	Institutional theory	Agency theory
Company size	✔	✔	✔	-
Company age	✔	✔	✔	-
Profitability (ROA)	✔	✔	-	✔
Leverage	✔	✔	-	✔
Government ownership	✔	-	✔	✔
Managers ownership	✔	✔	✔	✔
Foreign ownership	-	✔	✔	
Board of directors size	-	-	-	✔
Board of directors independence	✔	✔	-	✔
Audit firm size	-	✔	-	✔
CEO role duality	-	-	-	✔

After discussing the appropriate theories for this study, it is essential to review the existing relevant empirical literature in accordance with CSED in both developed and developing countries in general and in Saudi Arabia specifically. The next section will conduct a critical literature review of the empirical studies in the CSED field to identify any gaps in the literature where this study could contribute to the literature.

3.6 Empirical literature on corporate social and environmental disclosure

This section presents a review of the previous studies on corporate and environmental disclosure, while the next section will present how corporate characteristics and corporate governance mechanisms could explain the extent to which companies report such information. This literature review covers empirical literature in both developed and developing countries aiming to understand more about social and environmental disclosure. The review will be followed by an analysis of empirical literature in countries in the Gulf Cooperation Council (GCC), prompting reviewing of studies conducted on Saudi Arabia, the main focus of this study. After reviewing CSED literature, empirical literature detailing the determents of corporate social and environmental disclosure will be presented, and divided into two subsections. The first sub-section is comprised of the firm characteristics as a determinant of the level of CSED, followed by corporate governance mechanisms as an influential aspect affecting the level of CSED. This section will be analysed as follows: 3.6.1 will present an overview of CSED in developed countries, followed by 3.6.2., an overview of CSED in developing countries. And 3.6.3 will provides an overview of CSED in GCC countries including Saudi Arabia.

3.6.1 Overview of CSED in developed countries:

The majority of CSED studies that were conducted on developed countries were done so with different aims and methods (for example see: Gray et al., 1995; Guthrie, 1983; Hackston and Milne, 1996; Hassan and Kouhy, 2014; Kamal and Deegan, 2013; Ortas et al., 2014). It can be argued that developed countries have different CSED practices in comparison to those in developing countries (Imam, 2000). This could be a result of the fact that, historically, developed countries have paid greater attention to social and environmental issues than developing countries. This issue of the difference between reporting practices in developing and developed countries, has been highlighted by a significant number of studies (Imam, 2000; Pratten and Abdulhamid Mashat, 2009). The majority of studies related to corporate social and environmental responsibility (CSER) and corporate social and environmental disclosure (CSED) have been conducted in Europe, the USA, the UK, Japan, Singapore and Australia (Holder-Webb et al., 2009).

In the UK, According to Idowu and Towler (2004), the main CSR information disclosed by UK companies is related to the environment and the community, in a study of UK companies across different industries. While in developing countries, human resource information such as ‘the number of employees’ and ‘employee training’ are the categories that have been given considerably more attention rather than environmental contributions (Alsaeed, 2006; Belal, 2001; Gray et al., 2001; Guthrie and Parker, 1990; Ratanajongkol et al., 2006). A significant number of studies have compared corporate social and environmental practices, disclosure and reports types. Aguilera et al.(2006) conducted a study which compares corporate social responsibilities between the USA and the UK, and argue that the differences between the UK and the US corporate governance arrangements have resulted in company’s social responsibilities (CSR). In a similar study, Holland and Foo (2003) compare the environmental disclosure of companies in the USA and the UK, and the results indicate that each country’s environmental legal and regulatory framework influences the environmental performance and disclosure. In another comparison study, Ho and Taylor (2007) investigate the effect of firm characteristics on corporate social disclosure in the USA and Japan using a sample of 50 companies in 2003. They found that in Japan companies disclose more than USA companies, this could be because of the differences in cultures, the environmental regulations, and other institutional factors between the USA and Japan. In a USA study which explores the CSR disclosure practices of 50 publicly-traded U.S. firms, Holder-Webb et al. (2009) perform content analysis of the public information provided by these firms during 2004. In a recent study conducted in the USA, (Giannarakis et al., 2014) examine the environmental disclosure in relation to corporate governance mechanisms and firm characteristics (CEO duality, Women in board, greenhouse gas emission, leverage, Industry) during the period 2009 -2012.

In Singapore two similar studies conducted by Eng and Mak (2003) and Cheng and Courtenay (2006) used 158 listed firms to investigate the association between corporate governance and voluntary disclosure. In a cross sectional study, Michelon and Parbonetti (2012) examine the relationship between corporate governance mechanisms (independent directors, leadership, structure and CEO duality) and sustainability disclosure using firm characteristics as control variables. The study sample consisting of US and European companies, use annual reports, stand-alone reports such as social, environmental and sustainability reports. In a similar study, Gallego-Ã and Quina-Custodio (2016) analyse the practice of social and environmental disclosure in five different countries (UK, USA, France, Portugal and

Spain). The Sample of their study consists of 110 companies in 2014 using GRI, 2011 as an index; and they found that firm size and leverage have a significant effect on CSED.

In Europe, there are an extensive number of studies which analyse corporate social and environmental disclosure. Branco and Rodrigues (2008) conducted a study on 57 listed Portuguese companies in 2003 to analyse the relationship between total social responsibility disclosure reported in annual reports, the Internet and influencing factors. Leverage, firm size and media exposure are found to be the most significant factors influencing the level of social responsibility disclosure, while Industry, consumer proximity, environmental sensitivity and profitability are insignificant factors. In another European study, Reverte (2009) investigates the determinant of corporate social disclosure in Spanish non-financial firms in the years 2005 and 2006. Although it is a small sample study (46 Observations), it is considered significant, the results indicate that Firm size, media and Industries sensitivity are significant determinants of corporate social disclosure. In Greece, a study by Skouloudis et al, (2013) investigates corporate social disclosure determinants, and includes the 100 largest companies based on annual revenues. They found that ownership identity, firm size, industry and profitability are significantly affecting the level of disclosure. In New Zealand, Hackston and Milne (1996) conducted one of the significant studies in corporate social and environmental disclosure (CSED) practice and determinants. They discovered that most social disclosure contains human resource information and activities in addition to environment and community issues. Firm size and industry have a significant influence on the level of CSED whilst profitability is an insignificant factor.

3.6.2 Overview of CSED in developing countries:

As mentioned in the previous sub-section, the corporate social and environmental disclosure phenomenon began to be a topic of interest in research in developing countries later than in developed countries. As a result, it is less established than in developed countries, making further research on it necessary. Malaysia is one of the developing countries to have a significant number of CSED studies. Haniffa and Cooke (2002) examine corporate governance and cultural characteristics, in addition to firm characteristics as possible determinants of voluntary disclosures in the annual reports of 167 non-financial Malaysian companies during the year 1995. They found that firm size and governmental ownership has a positive significant effect on the level of voluntary disclosure, while CEO duality has a negative effect. This finding has implications for corporate governance policy formulation by the Malaysian Institute of Corporate Governance (MISG). Regarding the cultural factor, the proportion of Malay directors on the board is significantly associated with the level of voluntary disclosure. In a similar study, Ghazali and Weetman (2006) examine the effect of corporate governance mechanisms on voluntary disclosure in Malaysia after the 1997 financial crisis, to assess whether or not the regulatory reaction to the crisis increased the awareness of disclosure as a tool for corporate governance. They found that director ownership has a negative association with the level of voluntary disclosure, while board independent and CEO duality are insignificant determinants.

Another study conducted by Ghazali (2007) focuses on ownership structure in addition to firm characteristics as a determinant of corporate social responsibility disclosure. The study consists of 87 listed companies in 2001 using a checklist containing 22 items; the results indicate a negative effect of directors' ownership on the level of corporate social responsibility disclosure while governmental ownership and firm size have a positive influence. Another Malaysian study which emphasises corporate governance and firm characteristics was conducted by Said et al. (2009), and includes 27 companies in the period between 2005 – 2007 using content analysis to collect the required data. They found that board size, independency and leverage are significant factors that affect the level of corporate social disclosure while, CEO duality firm size and profitability are insignificant. Esa and Ghazali (2012) also examine the effect of corporate governance and firm characteristics on the level of corporate social and environmental disclosure. 27 non-financial listed Malaysian companies are the sample of the study for two years (2005 and 2007), the CSR index that has been used in the study includes human resources, environmental, community, product and service categories. The results of the study show that Leverage Board size Independent directors are significant factors affecting CSED while Company size and Profitability are insignificant.

Further studies have been conducted in developing countries such as China, India, Indonesia, Kenya and Bangladesh to analyse the practice of corporate social and environmental disclosure. Two studies carried out in China by Huafang and Jianguo (2007) and Li et al.(2013) investigate voluntary disclosure, the former investigate the effect of performance and state ownership while the latter examine the influence of corporate governance. In Kenya Barako et al. (2006b) examines the association of corporate governance practices with the voluntary disclosures of selected information in the annual reports of Kenyan companies. The results indicate that the presence of an audit committee and proportion of non-executive directors on the board is a significant factor associated with the level of voluntary disclosure. On the other hand, board leadership structure has an insignificant influence on the level of voluntary disclosure.

Kansal et al. (2014) examined the effect of firm characteristics on corporate social responsibility disclosure, they chose the top 100 listed companies in India as a sample for their study. They found that industry, reputation and profitability are significant factors affecting the level of corporate social responsibility disclosure. While Kansal et al (2014) examine the effect of firm characteristics on corporate social responsibility disclosure, Siregar and Bachtiar (2010) examine the association between corporate governance in addition to firm characteristics and corporate social responsibility reporting. They found that firm and board of directors' size have a positive effect on CSR reporting.

Furthermore, studies from Bangladesh have contributed to developing countries literature. Belal and Owen (2007) conducted a qualitative study to explore the view of managers about the current state of social reporting and the future prospects in Bangladesh. The study is based on 23 interviews with senior managers in Bangladeshi companies. The dominant findings of the study show that the pressure on stakeholders is one of the motivations behind company engagement in CSR. Two similar studies in Bangladesh are Khan et al. (2012) and Muttakin and Khan (2014), both of which examined the relationship between corporate governance and corporate social disclosure (CSD). Khan et al. (2012) found that Public, foreign ownership, board independence and audit committee are positively and significantly correlated with CSD, while main ownership is negatively significant and CEO duality is not a significant factor. Muttakin and Khan (2014) conducted their study on 135 manufacturing Bangladeshi companies listed from 2005 to 2009. The key findings of the study indicate that there is a positive association between firm size, and profitability (ROA) and the level of CSD; in contrast, there is a negative association between family ownership and the level of CSD. In a recent study Belal and Owen (2015) examine the determinants of stand-alone corporate social responsibility (CSR) reporting in a multinational subsidiary in Bangladesh. They found that stand-alone CSR disclosure is said to provide the subsidiary with the formal position in which to legitimise its activities in Bangladesh.

Middle Eastern and North African countries have relatively few studies in corporate social and environmental disclosure. Bayoud et al. (2012) examined the effect of firm characteristics on the categories of corporate social and environmental disclosure. The study applies a mixed method (quantitative and qualitative) using a sample which includes 135 Libyan organisations across four sectors. In Egypt two studies are investigating the influence of corporate governance on voluntary disclosure, Samaha et al. (2012) and Hussainey et al. (2011). The former study, Samaha et al. (2012), aims to investigate the impact of corporate governance attributes on the level of voluntary disclosure (including corporate governance) using financial statements and websites of Egyptian listed companies as a source of data. They found a minimal level of voluntary disclosure compared to mandatory disclosure due to ineffectiveness and inadequacy in the regulatory framework in Egypt. The findings indicate a positive impact of the proportion of independent directors in the board as well as firm size on the voluntary disclosure, in contrast a negative impact of duality in position and higher ownership concentration. Hussainey et al. (2011) in a similar study examine the effect of corporate governance (CEO duality, board independent, directors ownership and board size) on the level of voluntary disclosure using firm characteristics as control variables (leverage, firm size, profitability and industry types). The study sample includes 100 Egyptian listed companies in 2009; the results show a significant association between board Independent, firm size and the level of voluntary disclosure, negative association with CEO duality while board size, leverage, industry and profitability are insignificant.

In Jordan Naser et al. (2002) provides an empirical analysis of the changes in the depth of corporate disclosure after introducing IASs (International Accounting Standards), in addition to examining the association with firm characteristics. The outcome of the analysis reveals a slight improvement in the depth of disclosure; this improvement is also related to corporate size, audit firm status, liquidity and profitability. Menassa (2010) aims to explore the nature and quality of social information reported by 24 Lebanese commercial banks as well as the extent of these disclosures in relation to firm size, financial performance, and other chosen variables. He found that human resource, product and consumer information are the most commonly reported. He also found a significant association between the level of social disclosure, bank size and financial performance, yet a weak association with bank age and no association with listing status.

After reviewing empirical literature in developed and developing countries, it is important, when conducting this study, to identify and review empirical literature on the Gulf Co-operation Council (GCC) countries which will be discussed in the next sub-section.

3.6.3 Overview of CSED in GCC countries including Saudi Arabia:

The countries that have been gathered to form the GCC are considered developing countries and have been given little consideration~~s~~ regarding social and environmental issues (Alsaeed, 2006; Ararat, 2006; Gallhofer et al., 2011; Hossain and Hammami, 2009; Naser et al., 2006). The GCC countries include Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates (Davis and Hayashi, 2007). These countries are considered developing countries with the top rank in Middle East and North African countries in terms of an effective business environment (Sturm, Strasky, Adolf, and Peschel, 2008). The GCC countries have, to a large extent, similarities in some economics, social and characteristics such as oil revenue dependency, language, religion and culture (Al-Janadi et al., 2011). In the context of corporate social responsibility and disclosure, this issue considered new, however it is growing. According to Khan (2008), CSR in Gulf Cooperation Council (GCC) countries lacks formal policies although those companies contribute in sustainable development in some sectors such as education, health, housing and the environment. Studies that have been conducted on the GCC countries considered limited. These studies will be discussed in this section to illustrate the extent to which companies disclose social and environmental information.

Qatar has the highest GDP per capita and the most concentrated economy in hydrocarbon with a miner change from oil to gas and Qatar is developing its tourism sector (Sturm et al., 2008). Hossain and Hammami (2009) conducted their empirical study on 25 listed companies in Qatar to look at the determinant of voluntary disclosure using companies' annual reports. The affecting firm characteristics according to their results are age, size, complexity and assets and level of disclosure. On the other hand, profitability has an insignificant effect on the level of voluntary disclosure. Another study of CSED determinants in Qatar has been carried out by Naser, et al. (2006) who found an association between CSED and firm size, business risk and corporate growth as supported by the agency theory.

The United Arab of Emirates (UAE) is the second largest country in the Council in terms of its nominal GDP and GDP per capita. UAE is also the second country with less dependency on oil after Bahrain. Significant developments in tourism, transport and finance can be shown in the UAE (Sturm et al., 2008). Aljifri (2008) conducted research on 31 listed UAE companies, using their annual reports to examine the determinant of level of disclosure, such as sector, which has an association with the level of disclosure. In addition to size, other characteristics such as debt, equity ratio and profitability have found to have an insignificant association with the level of disclosure. Rettab et al. (2009) used survey data from 280 firms in Dubai to examine the association between corporate social responsibility (CSR) activities and company's performance using three measurement; financial performance, employee commitment, and corporate reputation. The findings demonstrate a positive association between CSR and company's performance (for all three measures).

According to Sturm et al. (2008), Kuwait depends mostly on Commodities with recent developments in finance. Al-Shammari and Al-Sultan (2010) conducted a study on 170 Kuwaiti listed companies to measure the level of voluntary disclosure (including social and environmental disclosure) by listed companies in their annual reports. Moreover, they examined the association between voluntary disclosure and some of the corporate governance characteristics. They compared the findings with those of a previous study which was conducted in 2009 and found an increase in voluntary disclosure of around 4% which indicated enhanced transparency by Kuwaiti companies.

Bahrain has a significant financial hub which served the Gulf and the Arab region, focusing on Islamic finance. Bahrain is considered to be the country that least depends on oil with a major Aluminium production. This is in addition to diversity in tourism and transport (Sturm et al., 2008). Joshi and Al-Modhahki (2003) carried out a study on internet disclosure in Bahrain and Kuwait. The aim of the study was to examine the factors that clarify the use of the internet in voluntary non- financial reporting (including social and environmental disclosure); the study sample consists of 75 companies. The results show 47.6 % companies from Kuwait and 48.5% companies from Bahrain had their own websites. Six variables were considered in this study to examine their influence on internet financial reporting. From the six variables size and industry were found to have a significant influence on financial reporting practices, while risk, the usage of this technology was still limited and slow in the Gulf perhaps due to cultural constraints. Profitability, country effect, and auditor size were found to have an insignificant effect on financial reporting.

Oman has the highest level of dependence on oil and gas and it needs to transfer to alternative sources of income; hence a significant infrastructure development is underway to boost tourism and enhance diversification in the manufacturing sector (Sturm et al., 2008). Minnee et al. (2012) conducted a study that aimed to explore the expectations and practices of corporate social responsibility (CSR) in Oman using 153 respondents. The study compares the expectations of the respondents with CSR performance of large and medium-sized enterprises in Oman. The results indicate that respondents expect companies to provide “safe and reliable products and services”, “appropriately treat employees”, “behave ethically”, and be “committed to social responsibility”. Moreover, the results demonstrate a lack of awareness of CSR amongst Omanis, young people, and those with a lower level of education, since their expectations were lower.

Further studies were conducted to explore and investigate corporate social responsibility and disclosure amongst Gulf Co-operation Council (GCC) countries. Khasharmeh and Desoky (2013) conducted a study which evaluates and compares the level of on-line CSR disclosure in GCC countries. Conjointly the study aims to examine the effect of company characteristics on the level of CSR on-line disclosure. The study sample consists of 163 companies listed in the GCC stock market in six countries. The study discloses that Qatar and Saudi Arabia have the highest level of online disclosure and that profitability and company type are significantly correlated with the level of disclosure.

In a similar study, Al-Janadi et al.(2011) compare the level of voluntary disclosure (including social and environmental disclosure) between two countries from the GCC including Saudi Arabia and United Arab of Emirates. They used the annual reports of companies listed in Saudi Arabia and the UAE from 2006 to 2007 to collect the voluntary disclosure information. The results of the study indicate a low level of voluntary disclosure as only 36% of the companies disclose voluntary disclosure out of the entire sample. The disclosed information lack social and environmental content. Moreover, the results divulge that the level of voluntary disclosure in UAE companies (42% on average) is significantly higher than that of Saudi companies (32% on average).

Few studies based on voluntary disclosure in general and corporate social and environmental disclosure in particular have been conducted in Saudi Arabia. For example, Al-Razeen and Karbhari (2004) investigated the correlation between the compulsory and voluntary disclosure (including social and environmental disclosure) in both listed and non-listed companies annual reports. Three disclosure indices have been constructed to analyse the disclosure in Saudi Arabia, including mandatory disclosure, voluntary disclosure closely related to mandatory and voluntary disclosure not closely related to mandatory disclosure. The results reveal a significant correlation between mandatory and voluntary disclosure in the mandatory index. Moreover, a weak correlation has been found between voluntary disclosure and the two other indices. The results point towards a low co-ordination between the board of directors and the management in writing parts of the annual report. The study analyses voluntary disclosure in Saudi Arabia in general, but not corporate social and environmental disclosure.

In a similar study Alsaeed (2006) analysed voluntary disclosure (including social and environmental disclosure) using the annual reports of 40 listed companies. His aim was to measure and analyse the extent of ~~disclosures~~ in addition to investigating the association between some firm characteristics and the level of disclosure. He constructed a disclosure index consisting of 20 items from previous studies, the results of which show that the average level of compliance and voluntary corporate disclosure is 30%. Interestingly, he discovered a positive interaction between the level of disclosure and firm size, and an insignificant association with debt, ownership dispersion, firm age, profitability, industry and audit firm size. Albeit this is the first study to examine the effect of a number of corporate characteristics and corporate governance mechanisms in Saudi Arabia, it is still considered small and relatively unobservant, since the index consists of only 20 items constructed in the index. Al-Janadi et al, (2013) examine the impact of corporate governance mechanisms on voluntary disclosure (including social and environmental disclosure) in Saudi Arabia. The data was extracted from the annual reports of 87 companies listed in the Saudi Stock Market from 2006 – 2007. The findings of the study indicate a positive association between corporate governance mechanisms and reporting quality. Particularly, non-executive directors, board size, CEO duality, audit quality, and government ownership have a significant effect on the quality of voluntary disclosure. The previous studies analysed voluntary disclosure in Saudi Arabia in general, the subsequent paragraph will refer to studies which address corporate social and environmental disclosure in Saudi Arabia.

Mandurah et al. (2012) carried out an exploratory study to assess the Saudi selected firms' managers' awareness level of CSR and how companies integrate CSR in their strategies and policies. They concluded that the level of CSR awareness was reasonable and that there was a moderately positive attitude toward the CSR issue. In a another study, Macarulla and Talalweh (2012) examine the level of corporate social responsibility (CSR) disclosure in Saudi Arabia. The data was collected from the annual reports of 134 Saudi listed companies using an index of labour, social and environmental categories. The study examines the determinants of the level of CSR disclosure. The results reveal that the level of CSR disclosure is low in Saudi Arabia. Additionally, firm size, profitability and economic sectors are the main determinants of CSR disclosure level, while auditing firm type (national or international) and regulated sectors are not determinants of the level of CSR disclosure. Their study is similar to this study; however, the sample of this study is larger and the constructed index includes more categories which help in investigating more social and environmental information (that could be not investigated in previous studies).

In a recent study, Habbash (2015) examines the influence of corporate characteristics and corporate governance on corporate social responsibility (CSR) disclosure in Saudi Arabia. The study is comprised of 267 annual reports of non-financial listed companies using a constructed index (17 items) based on ISO 26000. Although the identified level of CSR disclosure had increased since the previous studies, it is still considered low. This improvement could be a result of the application of the Saudi corporate governance code in 2007. Consequently, the results indicate a positive association between government and family ownership, firm size, firm age and CSR disclosure. To the contrary it highlights a negative association with firm leverage. No association has been found between board independence, role duality, institutional ownership, firm profitability, industry type and CSR disclosure. Agency theory was applied in the study to ascertain the influence of specific board characteristics and ownership structures upon disclosure. However, without being applied in conjunction with other related theories such as legitimacy theory, stakeholder theory and institutional theory, agency theory alone is inadequate to explain the CSR disclosure phenomenon.

Reviewing the literature of CSED and its determinants in developed and developing countries in general, and in Saudi Arabia is particular is one of the aims of this chapter. This CSED literature review has indicated a necessity of comprehensive studies to examine the practice of CSED in Saudi Arabia. Based on previous studies, there is scarcity in studies investigating the extent and the nature of CSED as well as the factors influencing the variation in the level of CSED and CSED categories in developing countries (N. A. Ghazali, 2007; Kansal et al., 2014). Taking into consideration the deference's between developing countries in terms of the societies point of view of the role of business in society which result in variation in the extent and nature of CSED (for more see: Chih, Chih, and Chen, 2010; Kamla, 2007; Matten and Moon, 2008; Williams, 1999). By doing so, the current study will add to the developing countries in general and to the Saudi Arabian in particular. The next sub-section will present the development of research question one after providing the rational and the gaps in the literature.

3.6.4 Research question 1 development

Saudi Arabia (as discussed in **Error! Reference source not found.**) is considered a developing country which has institutional, regulatory and contextual characteristics similar to Islamic and Arab countries. It is ruled by shariah[15] (Islamic law); the constitution and formal roles and regulations are based on Islamic law (Al-Matari et al., 2012; Hussainey and Al-Nodel, 2008). Therefore, Islamic perspectives and values (for example, equality, transparency, generosity, philanthropy, morality and accountability) affect life activities Saudi Arabia such as economic system, laws and regulations, and business (Abdul Rahman, 1998; Kamla, 2009; Sarkar, 2008).

Since 2008, Saudi Arabia has achieved an important economic position at international level as a member of the G20 (Al-Matari et al., 2012). Its economy is the largest economy in (MENA) and one of the largest economies in the world (Al-Filali and Gallarotti, 2012; Al-Matari et al., 2012, Piesse et al., 2012). Additionally, Saudi Arabia perform 25% of the total Arab Gross Domestic Product (GDP) in 2010, and 44% of the total Arab market capitalisation (Alshehri and Solomon, 2012; Albassam, 2014). It is one of the largest oil-producing countries in OPEC, in 2010 it was accountable for 31% of the total oil production of OPEC (Albassam, 2014; Habbash et al., 2015).

Saudi Arabia is one of the most competitive economies and the world's fastest reforming business environment, this makes Saudi Arabia an ideal investment opportunity. Its tax system as it is the third most rewarding system in the world. Another factor that gives Saudi a significant status is its growing economy: Saudi is

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[15] Shari'ah is the "Islamic law about human conduct and regulates everything referring to the life of the Muslim". It is based on Quraan (God's Holy Words), "the deeds and expressions of the Prophet (the Sunna) and the consensus of Islamic scholars" (Macarulla and Talalweh, 2012, P. 816).

one of the world fastest growing economies with 6.8 % in 2012 (SAGIA, 2013). Moreover, it is the largest free market in (MENA) region (SAGIA, 2013). The Saudi government offers incentives such as tax discounts and allowing foreign owners to take loans from Saudi banks belonging to the government in order to encouraged foreign companies to invest in Saudi Arabia. By 2005 there were a total of 642 foreign companies, of which 174 were industrial enterprises (SAMA, 2006).

As a result of the factors that is mentioned in the previous paragraph, some of the Saudi regulations have been changed, such as, the accounting profession (Al-Rehaily, 1992), corporate governance code (Albassam, 2014), investment policies and stock market regimes (Tadawul, 2015). Some of these regulations and code require companies to pay more attention to accountability and transparency. As an example in the Saudi Corporate Governance Code (SCGC) (2006, Article 10) includes stakeholder rights in sub-section “e) outlining a written policy that regulate the relationship with stakeholders with a view to protecting their respective rights; in particular” (Authority, 2006). Additionally, Part Three of the SCGC focuses specifically on enhancing corporate transparency and voluntary disclosure (Authority, 2006). Corporate social and environmental disclosure (CSED) is one of the voluntary disclosures that is expected to increase due to the development and the growth that took place recently in Saudi Arabia.

Another reason that enhances CSED to increase in Saudi Arabia, although it is a voluntary practice, is the pressures on companies from the government, social groups and the media on Saudi companies to be socially responsible. The government pressure can be revealed from some regulation such as corporate governance codes and Ministry of Labour regulation. The social groups’ pressure can be created from the awareness of social responsibility that they spread across the society. The media also play a significant role in placing pressure by CSR news on socially responsible and irresponsible companies.

The current literature suggests attention giving to studying and investigating CSED and corporate governance has been growing in Islamic and Arab countries, including Saudi Arabia (Alsaeed, 2006; Kamla and Roberts, 2010; Baydoun et al., 2013). Due to the differences in religious, social and political systems in these countries compared to those of developed countries, where most studies have focused. Therefore, these important and distinctive regulatory, institutional and contextual differences can have significant implications for the effectiveness of corporate disclosure, accountability, governance and performance mechanisms.

Based on the status of Saudi Arabia (as discussed in this section) and its significant economic, business environment, and based on its place in MENA and the boarder world, companies are expected to disclose more corporate and social information in recognition of their role in the society. It is stimulating to know are the previously mentioned factors motivating companies to disclose corporate social and environmental information in Saudi Arabia where CSED is still voluntary and at its infancy. Additionally, it is motivating to know also if the level of CSED is aligned with the country's reputation.

According to Adams et al., (1998) studies examining the quantity and quality of CSED, and exploring its experiences are considered necessary to improve the quantity and quality of CSED reporting in a country. Therefore, this research has several aims: first aim is to examine the extent of CSED in Saudi Arabia and the second is to investigate the nature of the disclosed social and environmental information amongst the Saudi-listed companies.

To accomplish the first and the second aim of this research, the following research question, as mentioned below, will be addressed in Chapter 5.

RQ1: What is the extent and the nature of the social and environmental information that is reported by the Saudi-listed companies?

The address this research question *(RQ 1)* the level of disclosure (number of issues reported) and the nature (the type and categories) of CSED will be analysed using Saudi-listed companies' annual reports

By addressing this research question, the understanding of CSED will be enhanced in general and the reason behind companies reporting different categories with different levels in specific. Particularly after reviewing the CSED literature in developed and developing countries, it can be argued that little investigation has been carried out in Saudi Arabia. Remarkably, the majority of studies conducted in Saudi Arabia do not take into consideration a multi-theoretical stance. A multi-theoretical perspective will enhance the analysis of the results of this study. It includes four theories, stakeholder, legitimacy, institutional and agency theory. Analysing the results using the most relevant and commonly used theories will enrich the analysis and the subsequent exploration of the findings. In contrast with some of the previous studies, this examination goes into greater depth and includes all the companies listed in the Saudi Stock Market on the date the data was collected. This larger sample provides more accurate results that can be generalised. Earlier discussions evidence a need for further studies addressing the phenomenon of CSED. This study reacts to the demand for more studies in the context of developing countries (Ghazali, 2007; Kansal et al., 2014).

This research question will be addressed in chapter five via the analysis of annual reports of the entire sample. Content analysis of CSED practice in Saudi listed annual reports will be presented to measure the extent of CSED. Additionally, a detailed analysis of what Saudi listed companies disclose (CSED categories) will be carried out. This analysis will provide an overview of CSED practice in Saudi Arabia, the average of general disclosure and what information is disclosed in their annual reports. Moreover, Chapter Five will discuss why some categories are disclosed more frequently than others based on theories the objective of which is to address research question one. Another significant issue which assists understanding of CSED in Saudi Arabia relates to the determinants of CSED.

After providing the motives and the development of RQ1 the next section will focus on reviewing the empirical literature related to the determinants of CSED.

3.7 Empirical literature of determinants of CSED

This section will be organized as follows: section 3.7.1 presents firm characteristics that influence CSED followed by section 3.7.2 which provides corporate governance mechanisms with relation to CSED. In each subsection, key studies and related theory are provided to suggest and justify the association between firm characteristics, corporate governance and CSED.

3.7.1 Firm characteristics

This section presents firm characteristics as determinants of CSED by providing a discussion of the association between each firm characteristic and CSED using the related theories that justify the association and are supported by the literature. In addition, the hypotheses related to each firm characteristic will be developed in this section. Companies with different characteristics have different levels and types of social and environmental disclosure (Alsaeed, 2006). Although they operate in the same country and have the same rules, regulations, legal enforcement and media pressure; there are other determinants that could affect the level of corporate social and environmental disclosure (Haniffa and Cooke, 2005; Branco and Rodrigues, 2008). Firm characteristics, such as size, age, leverage, profitability and other characteristics as determinants of social and environmental disclosure have been the subject of a significant number of studies in the West (Lang and Lundholm, 1993; Raffournier, 1995; Cooke, 1992; Wallace and Nasser, 1995). There are also several in developing countries (Alsaeed, 2006; Macarulla and Talalweh, 2012; Naser et al., 2002).

In investigating the association between the level of social and environmental disclosure and firm characteristics different theories, such as stakeholder theory, legitimacy theory, institutional theory and agency theory, have been used to explain such relationships. Stakeholder theory is used to explain how firm characteristics play a role in satisfying stakeholders. For example, it is argued that larger firms are exposed to a wider range of stakeholders and are thus expected to be exposed to more pressures than smaller companies (Gray et al, 2000). Legitimacy theory is concerned with the firms' abilities to maintain their legitimacy so that they can operate by engaging with their stakeholders and the wider society. As a result, legitimacy theory can explain the effect of some firm characteristics on the level of CSED such as firm age. It can be argued that old firms maintain their legitimacy by proving to society that they are legitimate to exist and operate Consequently, they disclose more social and environmental activities as well their accounting system and how it can be improved (Alsaeed, 2006).

On the other hand, institutional theory takes the view that companies report to comply with legal requirements, policies, rules and regulations (coercive isomorphic pressures). Additionally, to be able to compete with other companies (mimetic isomorphic pressures), such as those operating in the same industry they either try to disclose more CSED information in order to be a leader in the field thereby creating competitor advantage; or, they to try to compete with other companies Agency theory can explain companies' approach to corporate social and environmental disclosure: companies with higher level of leverage tend to disclose more social and environmental information to decrease the agency costs from the asymmetry information.

In this section, the findings of different studies have been discussed. For example, some characteristics are found to have a positive effect on the level of disclosure while some have a negative effect. Firm size, firm age, profitability and leverage are the most considered characteristics when investigating determinates of the level of corporate social environmental disclosure (Alsaeed, 2006; Khan et al., 2012; McWilliams and Siegel, 2000; Waddock and Graves, 1997). As mentioned previously, the majority of CSED studies were conducted in relation to developed countries (Gray et al., 1995; Guthrie, 1983; Hackston and Milne, 1996; Hassan and Kouhy, 2014; Kamal and Deegan, 2013; Ortas et al., 2014). This is also the case when addressing the effect of firm characteristics on CSED in developing countries. The aim of these studies is to explain the factors behind companies engaging in CSED (Adams et al., 1998; Adams and Kuasirikun, 2000; Bhattacharyya, 2014; Gray et al., 2001; Hackston and Milne, 1996). The gap between the number of studies in developed and developing countries results in a need for more studies on this phenomenon (Ahmed Haji, 2013; Alsaeed, 2006; Belal and Momin, 2009; Kansal et al., 2014).

Adams et al (1998) carried a survey of Western European corporations to investigate the influence of firm characteristics on corporate social reporting. They found that the information disclosed differs from country to country, although they did not ascertain the reason behind these differences. Branco and Rodrigues (2008) investigated the effect of firm characteristics, such as firm's size, media exposure and financial leverage, on reporting. They used content analysis to measure the extent of CSR disclosure of 49 Portuguese listed companies using annual reports and web sites. They found a positive association between firm size and media exposure. However, Industry, consumer proximity, environmental sensitivity and profitability are insignificant factors in a more recent study, Galani et al. (2012) developed an environmental index, with 15 disclosure items, to analyse 34 Greek companies' environmental disclosure. The results demonstrate a significant association between company size, global reporting, initiative reporting, industry membership and environmental disclosure.

Andrikopoulos and Kriklani's (2013) study consists of 139 Danish listed companies to investigate the determinant of environmental reporting. They found a significant relationship between company's size, profitability, leverage and the market-to-book ratio, and profitability and the level of environmental disclosure. Bhattacharyya (2014) examines the level of social and environmental reporting in Australia, including the association between firm characteristics and Social and Environmental reporting. The results indicate a low level of social disclosure with a significant difference in the level of disclosure between large companies and small industry. Moreover, there is a negative association between profitability measured by return on total assets and social and environmental disclosure. Additionally, no association has been found between companies' age, external auditor size and the level of social and environmental disclosure.

In Saudi Arabia, few studies have been conducted to examine the association between firm characteristics and the level of disclosure. AlSaeed (2006) conducted a study to investigate the relationship between some firm characteristics (i.e., size, leverage, age, profitability, ownership dispersion, liquidity and audit firm size) and the extent of CSR disclosure. He developed a checklist of 20 voluntary (including social and environmental disclosure) disclosures to assess 40 listed companies. The results showed that only firm size has a significant positive impact on the extent of CSR disclosure, while all other aspects have insignificant impact. AlSaeed (2006) study considered being the first study in Saudi Arabia to investigate firm characteristics to explain the variation of voluntary disclosure (including social and environmental disclosure); however, the sample in his study was only 40 companies which were the listed companies at the time that he collected the date (2003).

Macarulla and Talalweh (2012) examine the determinants of the level of Corporate Social Responsibility (CSR) disclosure using the annual reports of 134 listed companies in 2008. Thy constructed an index which includes three main categories: labour, social and environment. They found that firm size, economic sector and profitability are the characteristic that positively affect the level of CSR disclosure. On the other hand, type of auditing firm (international or local) and the regulated sector have an insignificant effect on the level of disclosure. Habbash (2015) in a recent study investigated the influence of corporate governance and corporate characteristics on corporate social responsibility (CSR) disclosure in Saudi Arabia. The sample includes 267 annual reports of Saudi non-financial-listed companies using a checklist of 17 CSR disclosure items. The findings show that firm size, and firm age are positively influencing CSR disclosure, while leverage has a negative influence and firm profitability is found not to has an influence on CSR disclosure.

Each firm characteristic included in this study will be discussed in the following sub-sections in addition to developing hypotheses after explaining the relation between each firm characteristic and CSED based on the appropriate theory and the relevant literature. The firm characteristics that will be investigated in this research are: size, age, profitability and leverage – all of which are viewed as determinants that influence CSED.

3.7.2 Corporate governance mechanism

This section will explore the relationship between corporate governance, corporate social and environmental disclosure and how corporate governance determines the level of CSED. According to Jamal et al. (2008) there is an overlap between CG and CSR. Cadbury (2000) defines corporate governance as ''the system by which companies are directed and controlled,'' therefore, it encompasses all business decisions and strategies including engagement decisions related to social and environmental responsibilities. The cruxes of debates in corporate governance are the conflicts of interests between principals (owners) and agents (Managers). This conflict of interest not only increases agency costs but results in managers providing an increased amount of accounting and voluntary information in annual reports, including corporate social and environmental information. Samaha et al. (2012), based on agency theory, indicate that CSED helps to reduce information asymmetry and agency costs and in turn improves investor confidence.

The basic concept of corporate governance used to be concerned with the conflict between shareholders and managers, however today the notion has been broadened to include debates related to accountability and transparency which satisfy all stakeholders and society (Gill, 2008). In doing so, the company is taking into consideration not only shareholders but other stakeholders such as customers, employees, government and society (Gill, 2008). This concept of companies considering all stakeholders (not only shareholders) has been supported and argued by stakeholder theory. According to stakeholder theory, when planning or making any decision, organisation management should include all stakeholders. Corporate governance can play a significant role in ensuring that stakeholders are treated and protected as shareholders (Clark, 1998; Solomon, 2010) in order to prove that they are legitimate to operate and this can be argued under legitimacy theory.

Institutional theory could also explain the relationship between corporate governance and the level of CSED, since corporate governance is approaching a higher level of CSED under governmental and societal pressure. Following globalisation came increasing pressures from governments, powerful stakeholders and the media. All of this has resulted in companies paying greater attention to social and environmental practices and disclosures (Kamal and Deegan, 2013). Improving voluntary disclosure, ethics, accountability and transparency are also part of corporate governance duties (Goodstein et al., 1994; Jamali, 2008; Aguilera and Cuervo-Cazurra, 2009; Monks and Minow, 2011; Bouwman, 2011; Hermalin and Weisbach, 2012; Allegrini and Greco, 2013). It can be argued that corporate governance codes assist in improving corporate accountability, transparency and voluntary disclosure (Aguilera et al., 2006; Jo and Harjoto, 2012). These concepts, ethics, accountability and transparency, are corporate social responsibility (CSR) concerns, therefore good corporate governance should lead to more corporate social and environmental activities and disclosures. Jamali et al (2008) and Kamal and Deegan (2013) state that corporate social responsibility and corporate governance should not be looked at separately since both are complementary to each other. Additionally, they claim that corporate social responsibility can be considered a part of corporate governance practices.

Studies addressing the effect of corporate governance on corporate social responsibility and disclosure have been conducted more frequently in developed countries than developing countries (Jamali et al, 2008). This calls for further studies to be conducted in developing countries. Moreover, the majority of studies focus either on corporate governance or corporate social practices and disclosure separately. In Malaysia, Ghazali (2007) investigated the effect of ownership structure (one aspect of corporate governance) on corporate social responsibility reporting. He analysed the annual reports of Malaysian companies and found that the higher the managerial equity ownership the lower the corporate social disclosure level. A positive association has also been found between governmental ownership and the level of corporate social disclosure. In addition to ownership structure, Said et al. (2009) examine the influence of more corporate governance mechanisms such as board size and independence, CEO duality and audit committee on corporate social disclosure. The results demonstrate that only governmental ownership and audit committee influence the level of corporate social disclosure.

Michelon and Parbonetti (2012) conducted a study on USA and European listed companies in the year 2003, they found that corporate governance is a fundamental determinant of sustainability disclosure. Kamal and Deegan (2013) focused on CSE-related governance disclosure. Their study investigated the disclosure of social and environment related governance information in Bangladesh and the changes in Bangladeshi companies' disclosure over time. Legitimacy theory is the base of their study as they argued that companies disclose social and environment related governance information in order to gain and maintain their legitimacy to operate in society. The findings of this study show that the disclosure of governance information lagged behind social responsibility, in addition to an increase in CSR related governance disclosure over the years.

In a study of Bangladesh, Khan et al. (2013) also examine the association between corporate governance and the level of corporate social responsibility (CSR) disclosures by analysing companies' annual reports. They base their study on legitimacy theory to understand the association between corporate governance mechanisms such as ownership structure, board independence, CEO duality,–audit committee and CSR disclosure. The findings indicate a positive association between public ownership, foreign ownership, board independence, audit committee and CSR disclosure. In contrast, a negative association can be detected between managerial ownership and CSR disclosure; however, it becomes positive for export oriented industries. CEO duality has been found to be insignificant in explaining the variation in CSR disclosure. The study indicates that corporate governance plays a vital role in companies' legitimacy through CSR disclosures.

In a study of Egypt, Samaha et al. (2012) examine the impact of corporate governance mechanisms such as director ownership, block-holder ownership, board size, board composition, CEO duality, and the existence of audit committees on the extent of voluntary disclosure, particularly corporate governance disclosure in Egypt. The results indicate a low level of disclosure of voluntary items but a high level of disclosure for mandatory items based on Egyptian Accounting Standards (EASs). Since Egypt is a developing country, the lower disclosure level could be the result of an inadequate regulatory framework in Egypt. They found that the proportion of independent directors on the board of directors in addition to firm size positively affect the level of corporate governance disclosure. On the other hand, CEO duality and block-holder ownership negatively affects the level of disclosure. The results of the study support theoretical arguments that claim companies disclose corporate governance information to reduce information asymmetry and agency costs and to improve investor confidence in the reported accounting information.

Haniffa and Cooke (2002) conducted a study to examine the influence of corporate governance mechanisms, cultural characteristics and firm characteristics on voluntary disclosures in Malaysian listed companies. They discovered a significant association between the non-executive director, the domination of family members by boards and voluntary disclosure. Additionally, one cultural factor is the number of Malay directors on the board, which is significantly correlated to voluntary disclosure. In a recent study conducted in Malaysia, Esa and Ghazali (2012) investigate the association between corporate governance mechanisms and the level of corporate social (CSR) disclosure of 27 Malaysian government-linked companies (GLCs) for two years (2005 and 2008). The results demonstrate that board size is positively associated with the extent of CSR disclosure. Siregar and Bachtair (2010) investigate the determinants of corporate social responsibility (CSR) disclosure which are board size, foreign ownership, firm size, profitability and leverage. They apply content analysis to analyse the annual reports of companies operating in Indonesia. The results provide evidence of a positive association between board size, firm size and CSR disclosure, while profitability and leverage are found to be insignificant determinants of CSR disclosure.

In relation to Saudi Arabia, few studies address the corporate governance mechanisms as CSED determinants (for example see Al-Janadi et al., 2013; Alsaeed, 2006; Habbash, 2015). Starting with Alsaeed's (2006), his study investigates the influence of two corporate governance aspects on the voluntary disclosure level. The aspects are ownership dispersion and audit firm size; both of which are yet to prove they have any effect on voluntary disclosure level. Although this is the first study to investigate the association between some corporate governance aspects and the level of voluntary disclosure, it includes only two aspects in addition to a small study sample. Moreover, only 20 voluntary items have been incorporated into the voluntary disclosure index. This study was conducted prior to the reform of Saudi corporate governance in 2006.

Al-Janadi et al. (2013) examine the effect of corporate governance mechanisms (internal and external) on voluntary disclosure in Saudi Arabia. The annual reports of 87 Saudi listed companies from 2006 – 2007 are the source of the study data. The findings emphasise the vital role that corporate governance mechanisms play in the reporting quality. Board size, non-executive directors, CEO duality, audit quality, and government ownership, positively correlate to voluntary disclosure.

After the reform of Saudi corporate governance in 2006, Habbash (2015) investigates the influence of Corporate Governance and corporate characteristics on corporate social responsibility (CSR) disclosure practices in Saudi Arabia. The study found an increase in the level of CSR disclosure compared to previous studies on Saudi Arabia, for example Al-Janadi et al. (2013) and Macarulla and Talalweh (2012). This improvement may be the result of the reformed Saudi corporate governance code in 2006. The findings provide evidence of a positive influence of family ownership, firm size, and firm age on CSR disclosure, but a negative influence of firm leverage. Board independence, role duality, institutional ownership, firm profitability, and industry type are found to have an insignificant influence on CSR disclosure.

Addressing this issue will require the testing of a number of hypotheses related to corporate characteristics and corporate governance aspects that are considered significant when studying corporate voluntary disclosure. In order to explain the variations in the level of CSED, this research will address a number of corporate governance characteristics including ownership structure, board size, independent directors, audit firm size and CEO duality. The following subsections will present a review of the empirical literature on the relationship between different corporate characteristics and corporate governance aspects and corporate social and environmental disclosure. Using this literature together with the relevant theoretical justifications, hypotheses will be developed to investigate the Research question 2.

3.7.3 Research question 2 development

The rationale for developing Research Question 2 is to build some rich understanding of the practice of CSED in Saudi Arabia by investigating the determinants of the level of CSED in general and its categories. Despite of the status of Saudi Arabia and the factors discussed in the previous sub-section which considered a motivation for this research, more factors are discussed below. In Saudi Arabia, corporate social and environmental disclosure is a voluntary disclosure where there is no enforcement regulatory law or regulation to force companies to perform it. However, there is pressure from different institutions which reassure companies to report social and environmental disclosure. For examples of the pressure, the pressure resulted from powerful stakeholders and societal expectations, the government (government laws and regulations such as Labour codes and Saudisation), NGO and media (J. L. Campbell, 2007; Elsbach and Sutton, 1992; O'Donovan, 2002; Tilt, 1994).This argument is supported by different theories such as stakeholder, legitimacy, institution and agency theory (as discussed previously in section 3.7)

Due to the variation between companies in terms of firm characteristics and corporate governance mechanisms, the respond to these expectations is varied as well. This variation can be shown in the level of CSED. Nevertheless, these companies are operating in the same country with the same legal system (Bozec et al., 2010) and cultural practices (Haniffa and Hudaib, 2006; Kamla and Roberts, 2010) and even in, some cases, in the same industry. In this regards, there are few studies which examined determinants of CSED in developing countries (see Branco and Rodrigues, 2008; Mahadeo et al., 2011) and in Saudi Arabia (Albassam, 2014; Habbash, 2015). This indicates that there is a real need to undertake research examining determinants of CSED in the developing countries in general and in Saudi Arabia in specific.

In order to enhance our understanding of the influence of firm characteristics and corporate governance mechanisms on the level of CSED (aim 3), research question 2 is raised as follows:

RQ2: what are the determinants of the level of CSED reported by Saudi-listed companies?

This research question is divided into two sub-questions since it includes two types of determinants; RQ2.a and RQ2.b (relevant hypotheses for each will be developed in sub-sections 3.7.4 and 3.7.5, respectively). Firm characteristics include firm size, firm age, profitability (ROA) and leverage, as implied in the following sub-question:

RQ2.a: Do corporate characteristics of Saudi Arabian listed companies affect the level of their CSED?

Additionally, corporate governance mechanism is the other determinant that will be investigated in this research including ownership structure (government, managers and foreign), board of directors' size, board of directors independence, audit firm size and CEO role duality as implied in the following sub-question:

REQ2.b: Do corporate governance mechanisms of Saudi Arabian listed companies affect the level of CSED?

Based on what has been discussed in the literature subsection (3.7.2: Corporate governance), it can be argued that Saudi Arabia lacks research addressing the effect of corporate governance mechanisms on corporate social and environmental disclosure (Habbash, 2015). This lack of research creates a need for more research to address the association between corporate governance and CSED (Albassam, 2014). Particularly in countries like Saudi Arabia where its corporate governance system concerns more about shareholders' interests more than stakeholders (as discussed in section 2.8: corporate governance framework). As a result, companies are more accountable to shareholders more than other stakeholders (Koenig-Archibugi, 2004). This can be shown in the SCGC, as it includes 3 main sections one of these sections in to protect shareholders' rights with a significant number of articles under the main section. Moreover, there is another main section has been giving to accountability and transparency with one article protecting stakeholder rights[16]. However, companies are considering stakeholders' interests and expectations while operating. Moreover, reporting information about their plans and activities they are performing to show their attention given to satisfying stakeholders such as corporate social and environmental disclosure. According to Jensen (2002) (as mentioned in section 3.4.4: Agency theory) there is a significant relation between shareholders' interests which is value maximization and stakeholders interests "enlightened value maximization". He claims that value maximization is a long-run objective that is achieved by satisfying stakeholders' needs and expectations such as customers, employees, suppliers, and the government.

Consequently, this study is considered significant since it seeks to investigate the factors affecting the level of CSED (including corporate governance factors. Especially since reviewing the literation (section 3.4.4: Agency theory) recommends that corporate social and environmental disclosure is researched in conjunction with corporate governance.

Research Question 2 will be addressed in (Empirical analysis of the determinants of the level of CSED) using regression analysis to analyse the data collected through content analysis from the Saudi-listed companies' annual reports.

Each firm characteristics and corporate governance mechanism included in this study will be discussed in the following sub-sections. In addition to developing hypotheses after explaining the relation between each firm characteristic and CSED based on the appropriate theory and the relevant literature. The firm characteristics and corporate

[16] Article 10 in Saudi Corporate Governance Codes includes stakeholder rights in sub-section " e) *Outlining a written policy that regulate the relationship with stakeholders with a view to protecting their respective rights; in particular*" (Authority, 2006)

governance mechanisms that will be investigated in this research are: size, age, profitability, leverage, ownership structure, board size, board independence, audit firm size and CEO role duality – all of which are viewed as determinants that influence CSED. Hypotheses development related to firm characteristics

This section presents firm characteristics as explanatory factors that are affecting the level of CSED as discussed in the previous section. In order to answer research question 2 particularly sub-question RQ2. The following hypotheses will be developed.

Company size and CSED

Firm size is considered one of the main and the most studied characteristics that influence firms' social and environmental activities and disclosure (Ruf et al., 2001). Although some of the earlier studies (such as: Ng, 1985; Singh and Ahuja, 1983) found no association between firm size and corporate social disclosure, most of the later studies argued that there is an association (Alsaeed, 2006; Bhattacharyya, 2014; Hackston and Milne, 1996). According to Udayasankar (2008), firm size has an influence on CSR, and it is strongly believed that larger firms are engaged in social responsibility more than smaller firms and they disclose more social and environmental information than smaller firms (Waddock and Graves, 1997). Large companies are more exposed to the public than small firms; as a consequence of which they are most likely to disclose more information for a several numbers of arguments supported by stakeholder, legitimacy and institutional theory (Naser and Nuseibeh, 2003).

First, larger companies usually got more stakeholders to satisfy than smaller companies. Based on stakeholder and legitimacy theories, companies tend to disclose corporate social and environmental activities as a response to their stakeholder groups and societal expectations thus, maintain their legitimacy. Furthermore, it could be a tool to present their self-constructed image and good reputation to the community to legitimize their operations (Branco and Rodrigues, 2008; Reverte, 2009).

Second, larger companies attain public, media and governmental attention as well as pressures to contribute to society (Abbott and Monsen, 1979; Dowling and Pfeffer, 1975; Lindblom, 1993; Watts and Zimmerman, 1986). Therefore larger companies disclose more information to show their contribution to society and environment (Naser et al., 2006).

Third, larger companies usually lead smaller companies, as suggested by institutional theory (mimetic isomorphism) larger companies disclose more social and environmental information. Additionally, larger companies are expected by the government also to be socially responsible and they are expected to report mores social and environmental information. According to Institutional theory, companies respond to the government pressure (coercive isomorphism) to contribute to the community (for example: Job nationalisation) by reporting social and environmental information. As a result, they will be entitled to receive governmental benefits and rewards. finally, larger firms tend to disclose more information in their reports to lower the cost of obtaining new funds (Botosan, 1997).

The majority of previous studies have supported the existence of a positive relationship between firm size and the extent of social and environmental disclosures (for example see (Alsaeed, 2006; Gray et al., 2001; Gray et al., 1995; Hackston and Milne, 1996; Huang and Kung, 2010; Jennifer Ho and Taylor, 2007; Menassa, 2010; Michelon and Parbonetti, 2012; Reverte, 2009; Skouloudis et al., 2013; Wallace and Naser, 1996). Some studies are on developed countries such as Hackston and Milne (1996), McMurtrie (2005), Jennifer Ho and Taylor (2007), Reverte (2009), Michelon and Parbonetti (2012) and Skouloudis et al (2013). Other studies are in developed countries such as Huang and Kung (2010) and Menassa (2010). Only few studies in Saudi Arabia have been conducted (Al-Janadi et al., 2013; Alsaeed, 2006; Habbash, 2015) in both of which a positive association between firm size and level of disclosure has been identified.

This study will examine the following hypothesis (H1) using more recent data, a larger sample and a multi-theoretical framework assist in analysing the results:

> *H1: larger companies are more likely to disclose more social and environmental information than smaller companies*

Company age and CSED

According to Camfferman and Cooke (2002), when investigating CSR disclosure, it is important to investigate a company's age as a factor related to CSR disclosure. The reason for investigating the effect of a company's age on the level of corporate social and environmental disclosure is the assumption that older companies disclose more social and environmental information throughout time (Alsaeed, 2006). This assumption is supported by legitimacy theory; arguing that older companies have built legitimacy throughout their operating years, so that developing their reporting of social and environmental information maintains their legitimacy. Based on stakeholder theory, older firms have more experience in dealing with stakeholders' needs, media and government rules and regulation than newly established firms. Moreover, stakeholders of old firms have more expectations and older firms disclose more social and environmental information to satisfy their stakeholders' needs. From an institutional theory perspective, older companies usually have more experience in operating as well as a more developed reporting system to report more social and environmental information. Few studies investigated the association between firm age and CSED, compared to firm size. Kansal et al. (2014) and Alsaeed (2006) studies have inconclusive results, they found that firm age has an insignificant effect on the level of disclosure. On the other hand, Menassa (2010) found a weak relationship between company age and level of disclosure in Lebanese banks. Muttakin and Khan (2014) in Bangladesh and Habbash (2015) in Saudi Arabia found a positive association between a company's age and corporate social disclosure.

This study will add to the existing literature by investigating the effect of firm age on the level of CSED, and by examining the following hypothesis:

> *H2 Older companies are more likely to disclose more social and environmental information than newly established companies*

Profitability and CSED

It has been argued that company profitability is one of the main determinants of CSED disclosure (Wang and Qian, 2011). Higher profitability encourages management to provide more information to prove their ability to maximise shareholders' value and thus increase managerial compensation (Alsaeed, 2006). Also, companies with high profitability disclose more voluntary information including social and environmental disclosure to show stakeholders and the public their achievements and promote a positive impression of their performance. This argument is supported by stakeholder theory and legitimacy theory (Branco and Rodrigues, 2008; Reverte, 2009). Companies with higher profitability contribute more to the society and tend to report more on their social and environmental activities to prove that they meet societal expectations and need and that they are legitimate to operate in society as suggested by legitimacy (Haniffa and Cooke, 2005). In particular, more profitable companies are under more pressure from media, NGO and the government, they are expected to declare their environmental harmless operations.

From an agency theory perspective, managers of firms with high profitability tend to show their achievement in detail since it will reflect on their reputation, image and salary. In contrast, when the profitability is low managers tend to hide some information, and disclose less to avoid negative effects on the companies' market value (Gallego-A lvarez and Quina-Custodio, 2016).

Overall, studies on the association between profitability and CSED remain inconclusive. Some studies found significant relationship (e.g. Gray et al., 2001) and some found no relationship (Alsaeed, 2006; Cowen et al., 987; Habbash, 2015). According to (Menassa, 2010), the results of the association between profitability and the level of disclosure differ according to the proxy used for profitability, return on assets (ROA), return on equity (ROE), profit margin (PM). Also distinguishing between profitability time period, such as long and short-term profitability, could explain the inconclusive results. Nevertheless, the results are inconsistent on short term profitability. Freedman and Jaggi (1988) and Belkaoui and Karpik (1989) found association between CSD and profitability in the same short time, while Roberts (1992) suggested a relationship with lagged profits.

On the other hand, previous studies found a positive association between short term profitability and CSD but did not provide any evidence of relationship between long time profitability and CSD (Patten, 1991 and Hackston and Milne, 1996). Belkaoui and Karpik (1989) found a positive association, arguing that managers who know how to make profits for the company must also have positive attitude towards corporate social responsibility. Liu and Anbumozhi (2009) also argued that there is a positive association between profitability and social and environmental disclosure. More studies that found a similar positive association (Patten, 1991; Hackston and Milne 1996; Gray et al., 2001; Skouloudis et al., 2013; Kansal et al., 2014; Muttakin and Khan, 2014).

In this regard, this study will use return on assets (ROA) as a proxy for profitability to test the following hypothesis (H3):

> *H3: companies with higher return on assets (profitability) are more likely to disclose more social and environmental information than companies with lower return on assets (profitability).*

Leverage and CSED

Companies with higher level of leverage are thought to disclose more social and environmental disclosure than firms with lower level of leverage. The assumption behind this argument is supported by stakeholder, legitimacy and agency theories. Based on stakeholder theory, companies with higher debt in their capital structure endeavour disclosing more information to satisfy creditors', shareholders' and investors' needs. They also disclose more to show that they are legitimate to operate, although they are high in debt and this what legitimacy theory suggests. Moreover, as suggested by agency theory, agency costs increase with a the increase of the level of leverage (Elzahar and Hussainey, 2012). As a result, managers of companies with high level of leverage disclose more information including social and environmental information to lower agency cost (Alsaeed, 2006; Gallego-A lvarez and Quina-Custodio, 2016). When the debt level increases, a conflict of interest between shareholder and creditors results, so and to prevent this from happening creditors seek more information to reduce information asymmetry and to make sure that the company will be able to pay the debt in the future (Gallego-A lvarez and Quina-Custodio, 2016). Therefore, a positive association between firm leverage and CSED is suggested (e.g., Fama and Miller, 1972).

The results from previous empirical literature regarding the association between firm leverage and CSED are still inconclusive. Chow and Wong-Boren (1987), Wallace et al. (1996), Haniffa And Cooke (2005), Alsaeed (2006) and Reverte (2009) found that companies' leverage failed to explain the variation in CSR level of disclosure. Moreover Branco and Rodrigues (2008) provide evidence of a negative association between financial leverage and CSR disclosures on the internet. On the other hand, Malone et al. (1993) found that a firms' leverage positively affects the level of disclosure. Esa and Ghazali (2012) stated that in the case of higher financial leverage, managers attempt to show their responsibility toward society by disclosing more CSR information in their reports.

In this study, a total liability to total assets ratio is employed to measure leverage and to examine the following hypothesis (H4):

> *H4: companies with High leverage are more likely to disclose more corporate social and environmental disclosure than companies with lower leverage.*

In addition to firm characteristics as determinants of CSED, it's equally as important to discuss corporate governance aspects as a determinant of CSED in Saudi Arabia. The effects of corporate governance aspects on the level of CSED will be discussed in the next section.

3.7.4 Hypotheses development related to cooperate governance mechanism

This section presents corporate governance mechanisms as explanatory factors that are affecting the level of CSED as discussed in the previous section. In order to answer research question 2 particularly sub-question RQ2.b the following hypotheses will be developed.

<u>Ownership Structure and CSED</u>

Ownership structure is considered one of the most significant factors of corporate governance practices (Albassam, 2014; Konijn et al., 2011), in addition to being one of the strongest explanatory factors for the variation in disclosure level (Choi, 1999; Cormier and Gordon, 2001; KiliÃ§ et al., 2015). As mentioned in the previous section, corporate governance practices consider both corporate social and environmental activities and voluntary disclosure. Since ownership structure is regarded as a characteristic of corporate governance it is said to affect~~s~~ corporate social and environmental practices and disclosure. Previous studies investigating the association between ownership structure and disclosure level found mixed results. Haniffa and Cooke (2002), Barako et al. (2006a), Khan et al (2012), Skouloudis et al. (2013) and Muttakin and Khan (2014) identified a positive association between ownership structure and disclosure level. However, Raffournier (1995), Naser et al. (2002), Eng and Mak (2003) and Al Saeed (2006) found no such association. Ownership structure varies from one company to another; thus, the upcoming subsections will explore the different types of ownership in relation to corporate social and environmental disclosure.

Government Ownership and CSED

Institutional theory suggests that government ownership influences corporate disclosure, particularly in developing countries where ownership concentration is common (Al-Moataz and Hussainey, 2012). Governmental regulations and legislations are aspects that affect a firm's level of corporate social and environmental disclosure (W. Li and Zhang, 2010). As a result, government ownership will demand more accountability and transparency, giving rise to further social and environmental reporting. According to Albassam (2014), governmental ownership is considered high in Saudi Arabia. This could result in a reduction in conflicts of interests between manager's plans and governmental social requirements, considering government plans and actions are based on social demands which differ from manager's goals (maximizing shareholders value) (Habbash, 2015). It can be suggested that companies whose large number of shares was held by the government would be more socially responsible and would disclose more social and environmental information.

Agency theory suggests that, in the case of governmental ownership, a balance will be reached between the goals of principals (governmental owners) and agents (managers). The company will generate profits whilst continuing to be socially responsible. The fact that the government establishes regulations to ensure companies remain socially responsible is another reason for the positive association between governmental ownership and CSED level. Companies that are owned by the government have a responsibility to set an example to other companies by being socially responsible and this will be evidenced in reporting (Habbash, 2015). Governmental ownership encourages good governance, accountability, transparency, corporate social responsibility and disclosure (Yaseen Al-Janadi et al., 2013; Eng and Mak, 2003; Habbash, 2015; Collins G. Ntim, Lindop, and Thomas, 2013; Said et al., 2009). Stakeholder theory can also explain the association between government ownership and the level of CSED. Companies disclose CSED to satisfy the needs and expectations of the powerful stakeholders such as government shareholders (Gray et al., 1996; Robert, 1992).

A positive association has been found between governmental ownership and voluntary CSED in previous studies such as Eng and Mak (2003), Ghazali (2007), Amran and Devi (2007) Khan et al. (2012), Ntim and Soobaroyen (2012), and Habbash (2015).

This study will examine the effect of governmental ownership by testing hypothesis (H5) as follows:

> *H5: There is a positive relationship between government ownership and the level of corporate social and environmental disclosure*

Managerial ownership and CSED

The association between managerial ownership and the level of CSED is supported by two opposing arguments. The first argument states that concentrated managerial ownership will lead to lower level of CSED. Managers pay less attention to public accountability and other stakeholders (Kuo and Hung, 2012). Moreover, managers are unwilling to invest in socially responsible activities because they're unaligned with their benefits (Oh et al. 2011; Ghazali 2007). According to McConnell and Servaes (1990) managers may use inside information for their own interests in order to maximize their wealth regardless of the company's performance, and this will suggest lowering their ownership.

However, if managerial ownership is low their motivation to improve the company's performance will decrease as a result of a decrease in the level of disclosure (Eng and Mak, 2003; Fama and Jensen, 1983). This point leads to the second argument: there is a positive association between managerial ownership and CSED. This is further supported by arguments that highlight the link between corporate governance reducing agency costs and the conflict of interest between principals and agents by controlling managers behaviour. Jensen and Meckling (1976) claimed that managerial ownership has a similar effect on controlling managers behaviour to mitigate agency problems. Additionally, managerial ownership increases the incentive for managers to improve the company's performance and maximize shareholder value which will result in an increase in the level of social and environmental disclosure. Furthermore, there is external pressure from stakeholders on companies which they cannot ignore for fear of losing their legitimacy. This is explained by stakeholder and agency theories which instruct managers to prove to stakeholders that they are legitimate to operate. Additionally, institutional theory suggests that managers should consider governmental and global standards and regulations and act according to accountability, transparency and social responsibility. Therefore, based on agency theory, stakeholder theory, legitimacy theory and institutional theory, a positive association can be detected between managerial ownership and CSED.

Previous studies on the relationship between managerial ownership and the level of CSED are inconclusive, since Eng and Mak (2003), Ghazali (2007) and Chau and Gray (2010) have found a negative association between managerial ownership and CSED. While Belal and Owen (2007) and Islam and Deegan (2008) found a positive association. Huafang and Jianguo (2007) failed to find any association between managerial ownership and CSED. In order to investigate the association between managerial ownership and the level of CSED the following hypothesis (H6) will be examined:

> *H6: there is a positive association between managerial ownership and the level of corporate social and environmental disclosure*

Foreign ownership and CSED

Companies with foreign ownership are expected to have higher level of corporate social and environmental disclosure in order to assist in decision making (Khan et al., 2013). This could be due to several reasons. For example, based on legitimacy theory, companies disclose more social and environmental information to prove to foreign investors that they are legitimate to continue with the current investment. Another reason is that the foreign ownership management is separate from the owner which enhances CSED (Schipper, 1981). Another reason is that foreign investors have different values and ethics and according to institutional theory global regulations could put pressure on companies to disclose more social and environmental disclosure Bradbury 1991). Haniffa and Cooke (2005) conducted a study in Malaysia and found a significant positive association between foreign ownership and CSED aiming to maintain their legitimacy. This study will examine the effect of foreign ownership on the level of CSED by testing the following hypothesis (H7):

H7: there is a positive association between foreign ownership and the level of CSED

<u>Corporate Board of directors Size</u>

The corporate board of directors has a vital responsibility to control the actions of managers' which affect the companies' strategies and plans (Said et al., 2009). There are two different views regarding the board of directors size: the first view claims that a smaller board size is more effective as they are able to provide a higher quality of monitoring and controlling. The reason for this is that the level of conflict is lower with in a small board size than in a larger board. (Al-Janadi et al., 2013). The other view suggests that a larger board size has an increased level of knowledge thus; they are more capable of managing the company (Pfeffer, 1972). Additionally, increasing the size of the board helps to reduce the uncontrolled power of managers (Al-Janadi et al., 2013)To overcome this problem and to limit the size of the board, the Saudi Corporate Governance Code has specified that the board of directors should have a minimum of 3 members and a maximum of 11. Each company has the right to choose an appropriate number of board directors best suited to the company's needs. According to agency theory, as a corporate governance mechanism, the board of directors aims to reduce managers' opportunistic behaviour by controlling their decisions. It also reduces the conflict of interests between shareholders and managers which only serve to increase agency costs. Moreover, the board of directors seeks to improve the company's accountability, transparency and social responsibility. Previous studies such as Said et al. (2009), Siregar and Bachtair (2010), Khan (2010) and Das et al. (2015) found that a large board of directors has a positive effect on CSED. As a result, a positive association has been found between the size of directors board and the level of CSED and this will be examined via the following hypothesis (H8):

> *H8: There is a positive relationship between the size of the board of directors and the level of corporate social and environmental disclosure.*

Proportion of Independent Directors

It is argued that Independent board members represent the interests of stakeholders, and therefore improve corporate governance (Solomon, 2010). According to Stakeholder theory, the existence of independent board directors place pressure on management to ensure that they operate successfully as well as to satisfy stakeholders' needs. Conjointly agency theory–suggests that the existence of independent board members controls managers opportunism to protect shareholders and reduce agency costs and information asymmetry (Allegrini and Greco, 2013; Fama and Jensen, 1983; Jensen and Meckling, 1976). Haniffa and Cooke (2002) examined 167 Malaysian listed companies and found that independent directors play an essential role in ensuring that companies' decisions and actions are aligned with the norms and values of society to ensure their legitimacy, as assumed by legitimacy theory. Consistent with this, it can be argued that the existence of independent board members will enhance accountability, transparency and CSED. In Saudi Arabia, the phenomenon of independent board members is considered new (Mandourah, 2012). According to the Saudi Corporate Governance Code, the independent board members shall not be less than two members or one-third of the members, whichever is greater (article 12: e). Previous studies found a positive association between the proportion of independent board directors and CSED, for example Huafang and Jianguo (2007), Harjoto and Jo (2011), Hussainey et al. (2011), Khan et al (2012), found that board independence positively affects the level of CSR disclosures. The positive association between the proportion of independent board directors and the level of CSED will be examined via the following hypothesis (H9):

H9: There is a positive relationship between the proportion of independent board members and the level of corporate social and environmental disclosure.

Audit Firm Size

Audit firms are third parties who assure the reliability and validity of financial reports (Porter, Simon, and Hatherly, 2003). They are one of the external corporate governance mechanisms, who help by checking a company's financial performance to monitor managers (Haniffa and Hudaib 2007). There are two types of audit firms: large (big 4) and small (not big 4). Large audit firms are more concerned with their reputation and are therefore more willing to associate with firms that disclose more information in their published financial reports (Alsaeed, 2006; Depoers, 2000). Agency theory is concerned with audit quality since providing more reliable and credible information in the reports reduces agency costs and big audit firms enhance disclosure quality (Al-Janadi et al., 2013; Eng and Mak, 2003; Haniffa and Cooke, 2002; Jensen and Meckling, 1976). This argument is consistent with the concept of legitimacy theory, the large audit firm considers their legitimacy and therefore request more information reporting including CSED. On the other hand, smaller audit firms are more concerned about losing their clients and as a result they give serious consideration to the customers' needs (Alsaeed, 2006; Malone et al., 1993). As a result, small audit firms are expected to require less information to be disclosed. Several studies examined the association between audit firm size and CSED such as Barako et al. (2006), Al saeed (2006) and Habbash (2015) who found no connection between audit firm size and CSED. Ntim et al (2012a) however found a positive association with voluntary disclosure in South Africa. Khan et al. (2012), and Al-Janadi et al. (2013), also found a positive association between audit firm size and CSED. Based on the argument that audit firm size positively affects the level of CSED, the following hypothesis (H10) is proposed:

H10: There is a positive association between audit firm size and the level of corporate social and environmental disclosure

CEO role duality

CEO duality is an important corporate governance mechanism to investigate; it materializes when the chief executive officer (CEO) role is merged with the chairman's. CEO role duality negatively affects the control system, presents a conflict of interest and reduces the level of accountability (Michelon and Parbonetti, 2014). According to Roberts et al. (2005) it is more effective for the company to separate the CEO and Chairman roles, as each individual will be able to do the job with minimum conflict (Albassam, 2014). Moreover, companies which separate the two roles achieve greater quality in making decisions concerning stakeholders, than companies which prefer CEO role duality (Pike and Haniffa, 2008). There are two opposing views to consider here, one supports the separation of the CEO and Chairman roles and the other dismisses it (Haniffa and Cooke, 2005). The reason behind the first view (the separation of CEO and chairman roles) is that the performance of companies which separate them is monitored and controlled more carefully than companies with CEO and Chairman duality. By contrast, the second view suggests that many companies which combine the role of CEO and chairman are performing well and are controlled and monitored effectively by the board. However, amalgamating the two roles and corresponding duties gives more power to the CEO and could result in decisions being made in his own best interests and not necessarily in those of the company as a whole. Additionally, it is argued that the neglect of stakeholder's interests and having less involvement in the community and disclosure are consequences of CEO role duality. Agency theory supports the first view (separation of CEO and chairman roles) since the separation reduces concentration of decision making power as well as minimising conflicts of interest and agency costs. The separation of CEO and chairman roles increases the efficiency of the control system which in turn protects stakeholders' rights and results in better disclosure quality (Al-Janadi et al., 2013). The findings from the previous study provide an inconclusive association between CEO role duality and CSED; no association and negative association. Cheng and Courtenay (2006), Said et al. (2009), Michelon and Parbonetti (2012), Giannarakis et al. (2014) and Habbash (2015) found no association between CEO role duality and voluntary disclosure including CSED. However, Haniffa and Cooke (2002), Eng and Mak (2003), Arcay and Vazquez (2005), Huafang and Jianguo (2007), Hussainey et al. (2011) and Al-Janadi et al. (2013) found a negative association.

Since the Saudi regulation included in the Saudi Corporate Governance Code prohibited the combining of the CEO and Chairman positions (Articl12:d) (Authority, 2006), together with the previous discussion's agency theory based argument that combining the two roles negatively affects the level of CSED. This research will examine the association between CEO role duality and the level of CSED via the testing of the following hypothesis (H11):

> *H11: there is a negative relationship between CEO duality and the level of corporate social disclosure.*

Similar to the second research question there is a rational for the third research question as discussed in the next sub section after reviewing the related empirical literature of determinants of CSED categories.

3.8 Empirical literature of determinants of CSED categories

In the context of the determinants of each category of corporate social and environmental disclosure, limited studies have been conducted in this regard. For example, Adams et al (1998) examine the amount and nature of social disclosure varied significantly across six European countries using 150 annual reports. They split social disclosures into three categories: environmental reporting, reporting on employee issues, and ethical reporting. They found that company size and industry are the significant factors that affect the level disclosure. Ho and Taylor (2007) in a comparison study between the USA and Japan examined the annual reports, stand-alone reports, and special website reports of 50 companies in 2003. They form five categories in investigating corporate social and environmental disclosure, which are economic disclosure, social disclosure, environmental disclosure, non-economic (social1environmental) disclosure, and total (economic1social1 environmental) disclosure. They examined the effect of firm characteristic and country (Firm size, Profitability, Liquidity, Leverage, Industry) on the five categories. The results indicate that the level of the disclosure id higher for Japanese firms. Additionally, a positive association between Firm size, firms operating in the manufacturing industry and the level of disclosure has been found. On the other hand, a negative association has been found between Profitability, liquidity and the level of disclosure.

The Branco and Rodrigues study (2008) investigate whether there is an association between international experience, company size, industry affiliation, environmental sensitivity and media exposure with CSRD in Portuguese Companies. They used Internet (corporate web pages) and annual reports to analyses the social responsibility disclosure (SRD) and what are the factors influencing it. The results indicate that companies disclose social responsibility information to legitimise their actions to their stakeholder groups and to enhance the external perception of reputation. The results also show both factors (firm size and media exposure) have a positive influence on SRD. Nonetheless, Industry, consumer proximity, environmental sensitivity and profitability are insignificant factors. The study includes four categories under SRD which are similar to the present study categories (environment, human resource, product and consumer and community involvement disclosure). In a similar study Bayoud et al. (2012) examined the effect of firm characteristics on the categories of corporate social and environmental disclosure. The study applies a mixed method (quantitative and qualitative) using a sample which includes 135 Libyan organisations across four sectors. He found a positive association between company age and industry type and the level of CSRD. The qualitative findings show a positive association between all factors used in the study and the level of CSRD in Libyan companies.

Michelon and Parbonetti (2012), examine the influence of corporate governance mechanisms (board composition, leadership and structure, CEO role duality) and firm characteristics (Corporate size, profitability, leverage, risk, age, listing status, reputation, country and industry). This study used annual reports, stand-alone reports such as social, environmental and sustainability reports of US and European companies to collect the required data. Stakeholder theory has been applied to this study. The disclosure includes four groups, strategic, financial, environmental and social information. They found that company size and corporate governance are significant determinant of disclosure. In a recent study, Giannarakis et al. (2014) includes 4 categories under corporate voluntary disclosure; environmental, social and governance. They examine the level of disclosure in relation to corporate governance mechanisms and firm characteristics (CEO duality, Women in board, greenhouse gas emission, leverage, Industry) during the period 2009 -2012.

3.8.1 Research question 3 development

The motivation behind raising this research question is similar to research question 2. Although both research questions are investigating the effect of firm characteristics and corporate governance mechanisms on CSED, the third research question specifies the categories of CSED. Six categories are included under CSED, environment, human resource, product and consumer, community involvement, economic and general disclosure. According to AlNodel and Hussainey, (2010), the literature indicates a need to investigate the influence on CSED categories as the previous studies on Saudi Arabia have not explore this phenomena. Additionally, this type of investigation has been recommended by a number of authors (see Martin Reginald Mathews, 1995; Parker, 2005; Parker, 2011). Therefore, this research examines the influence of firm characteristics and corporate governance mechanisms on CSED categories by addressing research question 3 as follow:

> *RQ3: What are the determinants of the level of CSED in terms of the categories that are reported by Saudi Arabian listed companies?*

Two sub-objective and sub-questions are under the third question, one is related to firm characteristics aims to examine the effect of specific firm characteristics (e.g., firm size, firm age, profitability (ROA) and leverage) on the level of CSED categories in Saudi Arabia:

> *RQ3.a: Do corporate characteristics of the Saudi Arabian listed companies affect the level of each category of the CSED?*

The other sub-objective is related to corporate governance aims to examine the effect of specific corporate governance mechanisms (e.g., ownership, board of directors size, board independence, CEO duality and audit firm size) on the level of CSED categories in Saudi Arabia:

> *RQ3.b: Do corporate governance characteristics of the Saudi Arabian listed companies affect the level of each category of the CSED?*

This research question is addressed in Chapter 7: Empirical analysis of the determinants of the level of disclosure categories by specifying the investigation of the variation in the level of Saudi listed companies reporting each CSED category. By doing so, this research will add to the developing countries literature in general and the Saudi literature in particular.

In summary, investigating the practice of CSED in Saudi Arabia in terms of the extent and nature, as well as the determinants of the level of disclosure and in general and the categories in specific will contribute to the Saudi literature. This investigation will give an overview of CSED in Saudi Arabia which will be constructive for three segments: academic, business and regulatory. Regarding the academic segment, as mentioned previously there is a shortage of CSED literature in Saudi Arabia and the results from previous studies are to an extent inconclusive (Habbash, 2015; Mandurah et al., 2012). Furthermore, the results from previous studies indicate that the level of CSED considered low in comparison to the figures and the factors of Saudi Arabia. This study uses an extensive index considers more CSED, in addition to using multi-theoretical perspective consisting of the most used theories in this regard which give the study an advantage. This research will benefit future research as they could build on the results of this study.

In the context of business, regulatory bodies and policy maker, this study considered significant. The findings of this study assist to understand whether the empirical evidences support and justify the need for a change in organizations decision, policy-makers or regulatory authorities' rules and regulation in terms of enhancing companies to engage in social and environmental activities thus, reporting these activities or information in Saudi Arabia.

3.8.2 Hypotheses development of the determinant of CSED based on the categories

Six categories are included under CSED which are environment, human resource, products and consumers, community involvement, economic and general social disclosure. The determinants of each category will be investigated and the following hypotheses will be developed and tested in chapter 7 to answer RQ3.

Hypotheses related to environmental disclosure.

The first category is environmental disclosure; two hypotheses will be developed to examine the relationship between environmental disclosure as the dependent variable and firm characteristics and corporate governance mechanism. The first hypothesis is related to firm characteristics (firm size, firm age, ROA and leverage) and it is as follow:

> *H12: There is a positive association between firm characteristics (firm size, firm age, return on assets and leverage) and the level of environmental disclosure*

The second hypothesis is related to corporate governance mechanisms (managerial ownership, governmental ownership, foreign ownership, board of directors' size, the proportion of independent members in the board of directors, CEO duality and audit firm size) and it is as follow:

> *H13: there is a positive association between corporate governance mechanisms (managerial ownership, governmental ownership, foreign ownership, board size, the proportion of independent in the board of directors, CEO duality and audit firm size) and the level of environmental disclosure*

Hypotheses related to human resource disclosure.

The second category is human resource disclosure; two main hypotheses will be developed in this subsection. The first is testing the association between firm characteristics (firm size, firm age, ROA and leverage) and human resource disclosure as follows:

> *H14: There is a positive association between firm characteristics (firm size, firm age, return on assets and leverage) and the level of human resources disclosure*

And the second is testing the association between corporate governance mechanism (managerial ownership, governmental ownership, foreign ownership, board of directors size, the proportion of independent members in the board of directors, CEO duality and audit firm size) and human resources disclosure as follows:

H15: there is a positive association between corporate governance mechanisms (managerial ownership, governmental ownership, foreign ownership, board of director's size, the proportion of independent in the board of directors, CEO duality and audit firm size) and the level of human resources disclosure.

Hypotheses related to products and consumers disclosure.

Products and consumers disclosure is the third category, in this sub-section, two hypotheses will be developed. Hypothesis related to the relationship between firm characteristics (firm size, firm age, ROA and leverage) and products and consumers disclosure as follows:

H16: There is a positive association between firm characteristics (firm size, firm age, return on assets and leverage) and the level of product and consumer disclosure

The next hypothesis is related to the relationship between corporate governance mechanism (managerial ownership, governmental ownership, foreign ownership, board of directors size, the proportion of independent members in the board of directors, CEO duality and audit firm size) and products and consumers disclosure as follows:

H17: there is a positive association between corporate governance mechanisms (managerial ownership, governmental ownership, foreign ownership, board of director's size, the proportion of independent in the board of directors, CEO duality and audit firm size) and the level of product and consumer disclosure

Hypotheses related to community involvement disclosure.

The fourth category is community involvement disclosure; in this sub-section, two hypotheses are developed to test the association between firm characteristics, corporate governance and community involvement disclosure. the first is related to firm characteristics (firm size, firm age, ROA and leverage) and community involvement disclosure as follows:

H18: There is a positive association between firm characteristics (firm size, firm age, return on assets and leverage) and the level of community involvement disclosure

The second is related to corporate governance mechanism (managerial ownership, governmental ownership, foreign ownership, board of directors size, the proportion of independent members in the board of directors, CEO duality and audit firm size) and community involvement disclosure as follows:

H19: there is a positive association between corporate governance mechanisms (managerial ownership, governmental ownership, foreign ownership, board of director's size, the proportion of independent in the board of directors, CEO duality and audit firm size) and the level of community involvement disclosure

<u>Hypotheses related to economic disclosure.</u>

Economic disclosure in the fifth category in the CSED index, this sub section presents the hypotheses related to this category. The first hypothesis to test the association between firm characteristics (firm size, firm age, ROA and leverage) and economic disclosure as follows:

H20: There is a positive association between firm characteristics (firm size, firm age, return on assets and leverage) and the level of economic disclosure

The second hypothesis is to test the association between corporate governance mechanism (managerial ownership, governmental ownership, foreign ownership, board of directors size, the proportion of independent members in the board of directors, CEO duality and audit firm size) and economic disclosure as follows:

H21: there is a positive association between corporate governance mechanisms (managerial ownership, governmental ownership, foreign ownership, board of director's size, the proportion of independent in the board of directors, CEO duality and audit firm size) and the level of economic disclosure

Hypotheses related to other social disclosure.

The last category in the CSED index devised in this study relates to general social disclosure (as will be shown in section 4.6.1). The hypotheses related to general social disclosure are presented in this sub-section. The first hypothesis, H22, to test the relationship between firm characteristics (firm size, firm age, return on assets and leverage) and general social disclosure is as follows:

> *H22: There is a positive association between firm characteristics (firm size, firm age, return on assets and leverage) and the level of general disclosure*

The second hypothesis, H23, examines the relationship between corporate governance mechanisms managerial ownership, governmental ownership, foreign ownership, board of director's size, the proportion of independent in the board of directors, CEO duality and audit firm size) and general social disclosure as follows:

> *H23: there is a positive association between corporate governance mechanisms (managerial ownership, governmental ownership, foreign ownership, board of director's size, the proportion of independent in the board of directors, CEO duality and audit firm size) and the level of general disclosure*

The above hypotheses, related to research question 3, will be tested in Chapter 7. Figure 3.3 provides an overview of the determinants of CSED and its categories in addition to the theory that justifies the correlations between the determinants and the CSED. The two boxes on the sides of the figure represent the determinants of CSED and its categories. On the left side, the firm characteristics (firm size, age, profitability and leverage). On the right side, the corporate governance mechanisms are shown (ownership structure, board size, board independency, audit firm size and CEO role duality). Four theories are included, stakeholder, legitimacy, institutional and agency theory.

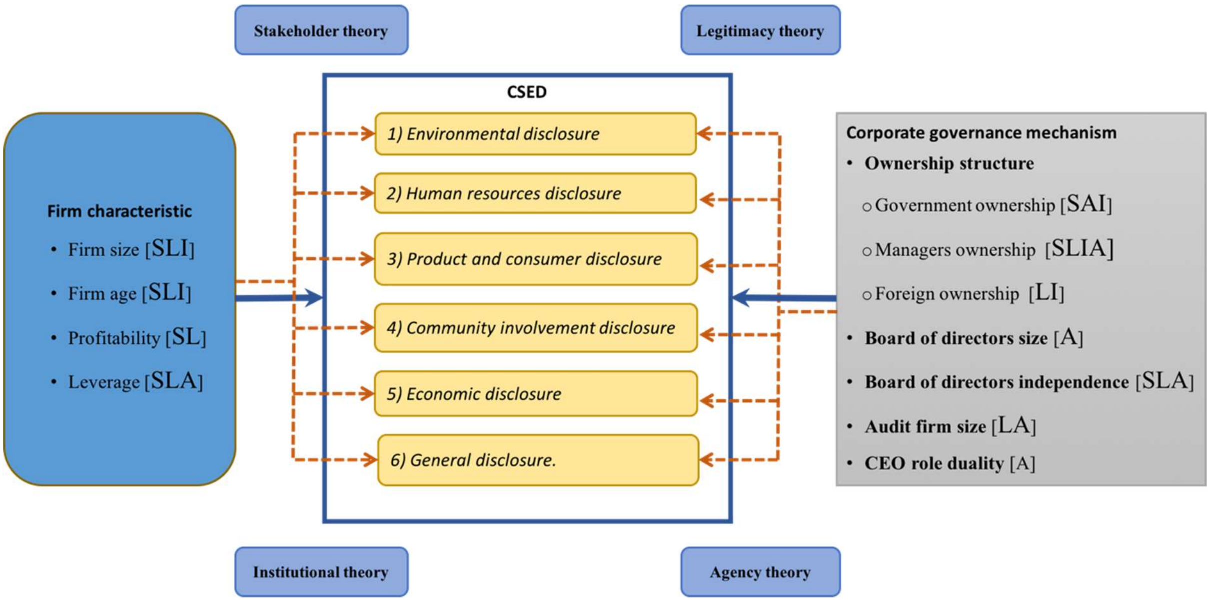

Figure 3.3: Factors and theories justifying CSED and its categories.

3.9 Chapter summary

This chapter constitutes a significant section of the thesis as it presents the key concepts of CSR and CSED in general as well as in the Saudi context as growing phenomena. The chapter also presents intentions of the government and how they will affect CSR and CSED. Furthermore, the development of CSED is explored in this chapter, and how this development reflects on Saudi Arabia. The Saudi government 2030 vision shows that the intention is to adopt more transparency as well as to give greater attention to the third sector. This will reflect on companies' social responsibility and disclosure. Saudi Arabia is a traditional Islamic country in which Sharia law controls all trading aspects. Zakat and Sadaqat and other similar concepts are forms of social responsibility because they contribute positively to society.

In addition to the key concepts, this chapter presents the appropriate theoretical framework (multi-theoretical framework) consisting of the main and most commonly used theories to explain CSED. Stakeholder, legitimacy, institutional and agency theories are all explored in this chapter. Each theory is discussed and connected to the research aim which is to analyse CSED practices in Saudi Arabia. Stakeholder theory suggests that companies tend to disclose social and environmental information in order to satisfy stakeholder needs. Moreover, legitimacy theory argues that companies should take into account the values and norms of the community in which they operate, and that there are social contracts between companies and the community. This social contract dictates the relationship between both companies and the community. Therefore, companies disclose social and environmental information in order to demonstrate that they are active members of the community and are operating legitimately. Institutional theory takes a wider view to include economic, social and political aspects. It suggests that social values, norms and cultures, as well as regulatory and competitive norms and values should also be included in companies' activities and accounting practices.

Since Saudi Arabia is a developing country, institutional theory explains corporate social and environmental disclosure and how governmental regulations affect the level and the type of disclosure. Agency theory is also used in this study as reducing agency costs resulted from symmetry information and conflict of interests between managers and owners is one of agency theory suggestions as well as its one of the social and environmental disclosure advantages. In addition, "enlightened value maximization" indicates to the link between shareholders' values maximization, as a long-run objective, and the satisfaction of stakeholders. By reporting social and environmental disclosure, the agency costs will reduce.

In this chapter literature reviews of previous key studies conducted to analyse CSED in developed, developing, GCC countries and Saudi Arabia are analysed leading to the proposal of Research Question 1 "*RQ1: What is the extent and nature of social and environmental information that is reported by the Saudi listed companies?"*. Additionally, the literature related to the determinants of CSED is divided into two types of determinants; firm characteristics and corporate governance mechanisms. A review of the literature shows a lack of studies conducted in Saudi Arabia and thus creates a need to address Research Question 2 and 3. *RQ2: what are the determinants of the level of CSED reported by Saudi-listed companies?"* And *RQ3: What are the determinants of the level of CSED in terms of the categories that are reported by Saudi Arabian listed companies?*

Both research questions have sub-questions; the first relates to firm characteristics including size, age, profitability and leverage. The second links to corporate governance mechanisms including ownership structure (government, managers and foreign), board size, board independence, audit firm size and CEO role duality. Each factor discussed in relation to the appropriate theories, supported by relevant literature and examined under proposed hypotheses.

In order to maximise the value of this research, an appropriate research methodology should be discussed and applied. The next chapter will present the research methodology applied in this research.

Chapter 4: Research methodology and method

4.1 Introduction

This chapter presents the research methodology and methods that underpin the study, as choosing the appropriate research approach and research method is essential in order to conduct the research and achieve reliable results. This chapter has three main objectives: firstly, to discuss the research paradigm, which is a positivist paradigm based on the philosophical assumption, as discussed in the second objective. The second objective is to deliberate the philosophical assumptions that led to the choice of the research paradigm, which are ontological and epistemological and the method is presented in the third objective, the third objective is to discuss the chosen research method aligned with the research objectives and questions. This research employed a quantitative research method and adopted a content analysis approach to answering the research questions of the study. This chapter will also present the data collection technique and the measurement of the variables, including the CSED index and explanatory variables measures. Statistical analysis techniques are also addressed in this chapter.

This chapter will be organised as follows: section 4.2 discusses the research paradigm; section 4.3 deliberates the research philosophical assumptions; section 4.4 discusses the research method, including content analysis approach; section 4.5 presents the data collection technique, including the study sample and data source; section 4.6 will discuss the measurements of the study variables, including CSED, the firm characteristics and corporate governance mechanisms; and section 4.7 presents the statistical analysis techniques, including the statistical test done to test the related hypotheses to answer the research questions. Finally, section 4.8 summarises the chapter.

4.2 Research paradigm

The research paradigm is the framework of the research, giving guidance on how the research will be conducted, including the philosophies, beliefs, perceptions, values, attitudes and assumptions that the researchers have in common. The research paradigm is about the world and the nature of knowledge (Collis and Hussey, 2013; 2007). There was one research paradigm for several years, until the beginning of industrialisation and capitalism. Different research paradigms have been introduced as a result of researchers realising that the natural sciences and social sciences should be distinguishable from each other (Albassam, 2014). Positivism is one of the most common paradigms that has been used in management research (Bryman, 2003). The concept of positivism is that knowledge results from empirical research, such as observations and experiments. Additionally, knowledge is independent and unaffected by social norms and assumptions (Saunders et al., 2009). The positivist paradigm depends on logical reasoning, mathematical proof and objectivity, rather than subjectivity and interpretations (Walliman, 2005). This paradigm depends on theories to explain social phenomena in the business context, assuming that the variables used in business research can be measured and analysed by using the quantitative method (Bryman, 2013; Collis and Hussey, 2013; Saunders et al., 2009). This research aims to analyse corporate social and environmental disclosure (CSED) practice in Saudi Arabia and to examine the determinants of CSED and its categories. Therefore, the positivism research paradigm is the chosen paradigm to conduct this research.

The positivist paradigm that has been chosen for this study is based on specific criteria. According to Creswell (2009), there are four essential criteria that a researcher should take into consideration when choosing a research paradigm. First is the researcher’s worldview, second is the researcher’s experience, third is the researcher’s psychological attitude and fourth is the nature of the problem. The researcher’s worldview means the concept or worldview that the researcher has put into the research. Some researchers favour the positivist paradigm and some favour interpretivism, depending on the ontological, epistemological, axiological, rhetorical and methodological assumptions, which are discussed in the next section. This research examines the relationships between the firm characteristics, corporate governance mechanisms and CSED by using data from annual reports. Therefore, the results of this research will be objective, based on facts and numbers. It will be independent and not subjective. The second criterion is the researcher’s experience, skills and training, such as quantitative or qualitative data analysis and computer skills, which can affect the selection of the research paradigm. This research applies a quantitative method to analysing the data, based on the nature of the research's aim and questions, as well as the nature of the data. The third criterion is how the psychological aspects also affect the choice of the appropriate research paradigm. Positivism is a traditional paradigm based on firm rules and procedures, while the interpretivist paradigm is more flexible in its procedure (Creswell, 2009). The fourth criterion is the type and nature of the research problem, which is a significant factor in choosing the research paradigm.

According to Saunders et al. (2009), the positivist paradigm is more appropriate if the research examines the influence of factors on a social issue. In contrast, interpretivism is more appropriate in the case of research that explores new social phenomena. This research will examine the determinants of corporate social and environmental disclosure in Saudi Arabia, and by applying the previous criteria to this study, it can be argued that positivism is the appropriate research paradigm.

In addition to the previous criteria, philosophical assumptions are also important in choosing the research paradigm. These assumptions will be discussed in the next section.

4.3 Research philosophical assumptions

Three philosophical assumptions have been taken into consideration while choosing the positivist paradigm for the current research. These assumptions, suggested by Bryman (2013), are ontological, epistemological and methodological. Firstly, the ontological assumption concerns the nature of reality, positivism assumes that reality is objective and is separate from the researcher. Secondly, the epistemological assumption addresses the relationship of the researcher to the research, and positivism suggests that the researcher is independent from what is being researched. Thirdly, the methodological assumption is concerned with the process of research, such as the deductive process in the positivist paradigm, and the study of cause and effect.

4.3.1 Ontological consideration

Ontology is about the philosophical assumptions that concern the nature of reality of the existing knowledge to be investigated (Easterby-Smith et al., 2008; Saunders et al., 2009). As mentioned in the previous section, the paradigm of this research is positivism, which argues that social reality as objective (Collis and Hussey, 2009), based on numbers and facts that are quantitatively measured by using statistical analysis. This study investigates CSED practice in Saudi Arabia and the association between the firm characteristics, corporate governance mechanisms and the level of CSED. The quantitative approach is used to measure the level of these aspects, and the outcome of this study includes more numbers than words. Therefore, the results are objective and value free (Bryman, 2003).

4.3.2 Epistemological consideration

According to Easterby-Smith et al. (2008, p.60), epistemology is a "general set of assumptions about the best way of inquiring into the nature of the world". In the positivist paradigm, the researcher should be independent of the research to reduce bias. Additionally, a quantitative approach attempts to reduce bias by using an appropriate data collection and sampling approach. This study aims to examine corporate social and environmental disclosure in Saudi Arabia by considering the quantity and the nature of the provided information through companies' reports. Additionally, it aims to examine the relationship between corporate social and environmental disclosure, the firm characteristics and aspects of corporate governance. To address this issue, CSED, content analysis and statistical analysis are all used; this allows the researcher to be independent from the research. The outcome of this study depends more on numbers than words, and is objective and value free. As a result, positivism is the suitable approach for this stage (Bryman, 2003).

4.3.3 Methodological consideration

According to Saunders et al. (2009), methodological consideration is concerned about the theoretical, philosophical framework and its implications for the chosen research method. It answers the question of how research should be undertaken. In a positivist approach, the deductive process is used to test the hypotheses and seek to develop the generalisability of the findings in order to explain and understand certain phenomena. To do so, the information and instruments should be both valid and reliable (Johl et al., 2012). This study applies deductive approaches to investigate CSED practice in Saudi Arabia and its determinants.

A deductive approach is concerned with the relationship between the theory and the research that starts with a previous study or theory to guide the research (Adams, 2007). It begins by identifying the theories and the relative literature. The stages of this research run in parallel with the deductive process, which is presented in Figure 4.1, according to Bryman and Bell (2015). The first stage is the starting point of this research and this involves exploring both the theoretical and empirical literature related to CSED, the firm characteristics and corporate governance aspects. It can be shown by exploring literature related to the research in Chapter 3 that CSED is a growing phenomenon that has received attention in developed and developing countries. However, CSED is more recent in developing countries than in developed countries. The research question of this study is based on previous studies and theories, such as the stakeholder, legitimacy, institutional and agency theories. Therefore, a deductive approach is the most appropriate approach. During the second stage, research questions and hypotheses will be formed that aim to investigate corporate social and environmental disclosure practices and categories, in addition to its determinants. The following stage collects the required data by using secondary data from the companies' financial reports. The collected data is then being analysed during the next stage by using statistical tests. Finally, the last stage links the results with the objectives and theories, and this is what a deductive paradigm is about.

Figure 4.1: The process of deduction (Bryman and Bell, 2015, p.23).

4.4 Research method

This section discusses the method employed to conduct this research, according to the research objectives and questions. The quantitative method considers one of the most popular approaches in corporate social and environmental disclosure (e.g., Haniffa and Cooke, 2002; Alsaeed, 2006; Ntim et al., 2012a; Allegrini and Greco, 2013). It deals with the numerical data and measurement that is required while investigating the relationships between the variables in a particular sample.

This study uses the quantitative method because of the nature of the research problem, the objectives and the questions. It is based on research questions that aim to examine the level of corporate social and environmental disclosure (CSED) practice in Saudi Arabia. Additionally, this study investigates the factors that affect the level of CSED and seeks to understand the motivation of companies that disclose social and environmental practices. There are various methods of collecting data (e.g., questionnaires, observation, document analysis etc.). To ensure the required information is collected, it is essential to choose the appropriate method, which will enable the research questions to be answered as unambiguously as possible. In this study, content analysis is employed to collect and code the data, which will be discussed in the next sub-section.

4.4.1 Content analysis

Content analysis is used to establish a platform of corporate social and environmental categories that are mostly disclosed in the annual reports of all Saudi-listed companies in (2012). According to (Krippendorff, 2004, p. 18), content analysis can be defined as "*a research technique for making replicable and valid inferences from text (or other meaningful matter) to the context of their use*". From the previous definition, the content analysis method codifies the text into categories that are based on particular principles (Abbott and Monsen, 1979). This technique has become a widely used method by a significant number of researchers when conducting research into corporate social and environmental reporting (see: Alsaeed, 2006; Amran and Devi, 2008; Branco and Rodrigues, 2008; Cormier et al., 2005; Deegan et al., 2002; Gray et al., 1995; Habbash, 2015; Hackston and Milne, 1996). It has been "*the research method that is most commonly used to assess organisations' social and environmental disclosures"* (Milne and Adler, 1999, p. 237as cited in Vourvachis and Woodward, 2015).

In this research content analysis, it is used to measure the social and environmental disclosure of companies because it is objective, systematic and reliable (Krippendorff, 2004). Additionally, it is a suitable technique to analyse CSED as annual reports are accessible (Aras et al., 2010; Hughes, 2001). The results can be obtained through different requirements, such as identifying the CSED and its categories, units of analysis, the reliability and the validity of the content analysis technique that has been chosen, which will be assessed in the next section. Furthermore, there should be a list of rules for systematic and consistency analysis when collecting social and environmental information and its categories from annual reports (as shown in Appendix 4) (Gray et al., 1995; Hackston and Milne, 1996).

The first step of content analysis is to identify the aim and the research questions that will be investigated in the study. This study aims to investigate CSED practice and its categories in Saudi Arabia and three main questions need to be addressed to do this investigation. The first is to investigate the extent and nature of CSED in Saudi-listed companies. The second is to examine the effect of the firm characteristics and corporate governance mechanisms on CSED in Saudi Arabia. And the third is to examine the effect of the firm characteristics and corporate governance mechanisms on each category of CSED in Saudi Arabia. To answer these research questions an investigation of CSED in the annual reports of Saudi-listed companies is required by using the content analysis technique. The sub-section below presents the various steps of the content analysis methods.

4.5 Data collection technique

This research is based on secondary data, which are annual reports and financial reports. This data is needed to develop a balanced understanding of corporate social and environmental disclosure (CSED) practice in Saudi Arabia, as well as the association between CSED, the firm characteristics and corporate governance. This section discusses the study sample and data sources in order to conduct this study's quantitative analysis. This section is divided into two sub-sections: subsection 4.5.1 discusses the study sample and subsection 4.5.2 addresses the data sources and selected data.

4.5.1 Study sample

The sample of the study consists of 164 Saudi-listed companies that operated in 15 different sectors in 2011 and 2012 (see appendix 2 and 5). A total of 244 annual reports for the entire population of companies in Saudi Arabia were used to collect the data. The sample consists of 80 reports on 31 December, 2011, which were available at the data collecting time, and 164 reports on 31 December, 2012, the last year that most companies' reports were available when the data collection began (see: Alsaeed, 2006; Naser and Nuseibeh, 2003). The annual reports were collected from the Saudi Stock Exchange (Tadawul) website. For the sake of reliability, the annual reports of 164 companies in 2012 have been used for the statistical analysis in order to investigate the practice of corporate social and environmental disclosure and its categories and the determinants. However, 4 companies were excluded from the sample because there were no available reports for them when the data was collected. As a result, the actual sample is 97.5% of the total sample. Additionally, by comparing CSED in the available annual reports of the 80 companies in 2011 and 2012, it was found there were no significant differences between the social and environmental disclosure during these two periods. Furthermore, the laws and regulation that might affect social and environmental disclosure usually tend to remain constant over a short period of time (Botosan, 1997).

The sample of this study includes all the Saudi-listed companies in 2012. Although some of the existing studies have excluded financial firms or chosen particular sectors (Habbash, 2015; Khan et al., 2012), this study includes them (consistent with: Albassam, 2014; Hackston and Milne, 1996) for the following reasons. Firstly, similar rules and regulations are applied to all the companies, including financial and non-financial companies (for example, Saudi Corporate Governance Code (SCGC), listing requirement and the Company Act) (Albassam, 2014). Secondly, including all the companies in all the sectors will assist in the exploration of more companies and the result will, therefore, be more general. Thirdly, most of the studies that excluded financial companies were conducted in developed countries, where there is a large number of companies, but the number of listed companies in developing countries is limited, including Saudi Arabia. As a result, the sample of the study would be limited if financial firms were excluded.

4.5.2 Data source

Two different types of data were used to investigate CSED in Saudi Arabia and examine the association between firm characteristics, corporate governance mechanisms and CSED: (i) CSED information and (ii) the firm characteristics and corporate governance mechanisms information. Firstly, the CSED information was manually extracted from the firms' annual reports using content analysis. A total of 160 annual reports, which represents 97.5% of the total sample, were collected from different sources: (i) the Tadawul database and (ii) company websites. Secondly, the firm characteristics and corporate governance variables were obtained from 3 sources: (i) the Bloomberg database, (ii) the Tadawul database and (iii) the companies' financial reports (such as audited firms' financial statements from the Tadawul's database). Content analysis technique was used to collect and analyse the required data, which will be discussed below.

As mentioned in the previous paragraph, annual reports are the source of CSED data, although companies disclose their social and environmental information through different media, such as annual reports, stand-alone reports, websites and other media (see: Branco and Rodrigues, 2008). However, including the entire documents would be unbearable and time-consuming and Unerman (2000) has advised researchers to limit the data source documents for two reasons. This is because the large number of documents published by large companies each year would result in a vast number of documents to be analysed by a researcher. In addition, there is the question of the availability of the published documents on the database archive, as it may be challenging to get hold of the complete required data. As a result of what has been discussed, it is unfeasible to use all the documents to measure CSED; therefore, this research only focuses on the companies' annual reports as a document of analysis for the following reasons.

Annual reports are documents that all listed companies are required to publish in the Tadawul database, as the Capital Market Authority (CMA) makes them mandatory. As a result, they are accessible, easy to obtain and are widely distributed, including on the company's website (Adams and Harte, 1998; Wilmshurst and Frost, 2000). Moreover, companies provide corporate social and environmental disclosure in their annual reports, even if they publish a stand-alone report. Furthermore, an annual report is a significant corporate document that provides comprehensive information about the company's performance, including financial and non-financial information (Daub, 2007), and is considered to be a highly credible source of information (Tilt, 1994). This is consistent with many previous studies that have used annual reports in CSED (for example see: Alsaeed, 2006; Amran and Devi, 2007; Belal, 2001; Habbash, 2015; Hackston and Milne, 1996; Haniffa and Cooke, 2005; Sobhani et al., 2009). Therefore, annual reports will be the source of date collection of this study.

This is consistent with CSED previous studies that have used content analysis technique, which will be discussed in the next section. As a result of doing this, the results obtained from this study can be compared with those of previous studies.

The next section will discuss the variables measurements, including dependent (CSED) and independent (firm characteristics and corporate governance mechanisms). In order to collect the data from the annual reports, a CSED index was constructed to identify CSED and the categories that are discussed below. Other variable measurements will be discussed as well to investigate the CSED and its categories and examine the determinants of CSED.

4.6 Variables measurement:

This section provides the measurements of the variables that are used in this study to investigate CSED practice in Saudi Arabia and its categories. CSED is the dependent variables, and the firm characteristics and corporate governance mechanisms are the independent variables. This study aims to investigate the influence of the firm characteristics and corporate governance mechanisms on the level of CSED. Measurements of the factors will be discussed in this section, as follows: 4.6.1 provides the measures of CSED and its categories, 4.6.2 the measures of the firm characteristics, and 4.6.3 the measures of corporate governance mechanisms.

4.6.1 Corporate social and environmental disclosure (CSED index)

This research investigates CSED practice in Saudi Arabia and its categories in addition to the determinants by using Saudi-listed companies' annual reports. Content analysis is the data collection method that is used through a constructed CSED index. This index is constructed to measure CSED and its categories and is based on previous studies, such as Hackston and Milne (1996), which were based on earlier structures developed by Ernst and Ernst (1978), Guthrie (1982) and Gray et al. (1995). There were six main categories of disclosure in the previous research, which were environment, energy, human resources, product and safety, community involvement and others. The sub-categories of disclosure are classified under each category. In this study, energy is considered as a sub-category under the environment, and the categories of economic and general social disclosure have been added. This index is also based on the Global Reporting Initiative approach (GRI) (2011) as an economic category, in addition to other sub-categories and items extracted from the GRI (2011). Furthermore, the index includes items from legal laws and regulations documents, such as The Labour Law and The Zakat and Tax System. The index has been widened with the aim of including the majority of social and environmental information reported by Saudi-listed companies.

By doing this, the study will contribute to Saudi literature by intensely investigating CSED practice and the categories disclosed by Saudi-listed Companies. It will also assist regulatory bodies in improving the practice of CSED by providing comprehensive results about what is reported by Saudi-listed companies. Furthermore, companies will benefit from this study by being able to check if their social and environmental disclosure plans and policies are compatible with the market or if there is a need for change.

CSED in this study has six main categories: the environment, human resource, products and consumer, community involvement, economic and general social disclosure, which were developed from Hackston and Milne (1996), Branco and Rodrigues (2008) and GRI (2011) and other Saudi regulations, as mentioned above. Each category includes sub-categories and items. **Environmental disclosure** includes information related to pollution prevention or reduction, conservation of natural resources, energy conservation, aesthetics, biodiversity and other environmental disclosure. **Human resource disclosure** encompasses information related to employee training and development, employees' pay and benefits, employees' health and safety, equal opportunities and employees' social life. **Product and consumer** includes information related to product and service development, product and service quality and safety consumers' relations. **Community involvement** comprises of information related to education and training contribution, art and culture contribution, public health and safety contribution, sponsoring sports or recreational projects, donation and other community involvement disclosure. **Economic disclosure** includes information related to economic performance, market presence and job nationalisation (Saudisation). **Other social disclosure** encompasses reporting policies for disclosure and transparency, awards for transparency, implementing sustainability management, declaring accounting standards, anti-corruption policies and procedures, disclosing ethics practices, the percentage of the company's profit spent on CSR, CSR awards received and general CSR information.

The figure 4 below presents the main six categories and sub-categories included in the study index.

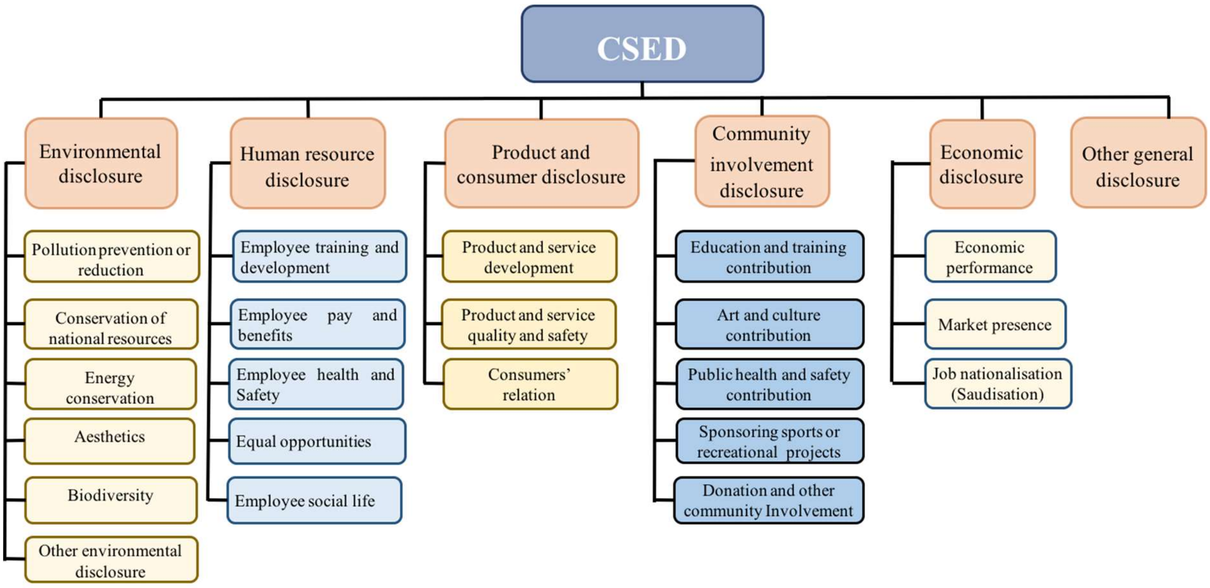

Figure 4.2: The categories of CSED index

After constructing the primary CSED index (and before adding the job nationalisation (Saudisation) a pilot study was conducted on a sample of 30 companies (2 companies from each industry). These companies were chosen randomly (see Appendix 6) and the results from the pilot study showed that almost the entire sample disclosed information about Saudisation, employee-related information and community involvement. As a result, a Saudisation item has been included in the index under economic disclosure. The reason for adding it under the economic disclosure category is the aim of the Saudisation, which is unemployment reduction. The final CSED index, which includes the categories and sub-categories, is presented in the figure below and Appendix 4.

4.6.2 The CSED scoring

A binary coding has been used to collect the CSED data of Saudi-listed companies' annual reports by using the constructed CSED index through the content analysis technique. This method depends on checking the presence or absence of corporate social and environmental items in the index. If the item is disclosed in the annual report, then it will be scored 1 and 0 otherwise. This scoring scheme has been used in a significant number of CSR disclosure in previous studies (e.g., Belkaoui and Karpik, 1989; Campbell et al., 2006; Haniffa and Cooke, 2002; Samaha et al., 2012). Despite criticism of the binary scoring scheme[17], this study has adopted it for the following reasons. Firstly, the study aims to investigate CSED practice in Saudi Arabia to find out what companies are reporting and to what extent they are doing so. Using the binary scoring scheme will enable the study to test what companies are reporting by stating the information's existence or absence. Therefore, using this scheme seems appropriate in the study's examination of the level of CSED by summing up the total disclosure. Secondly, binary scoring is often more objective and less biased than other schemes, such as weighted coding as binary scoring, as it does not need the researcher's judgement to give weight to the information (Beattie et al., 2004; Hassan and Marston, 2010).

Two issues will be discussed in the next sub-section to ensure the quality of the index and the data collected through the index – the reliability and validity of the constructed index.

4.6.3 Reliability and validity of the constructed index

This sub-section discusses the reliability and validity of the constructed index, which is needed to ensure the quality of the index. Reliability means "*the ability of a measurement instrument to reproduce consistent results on repeated measurements*" (Hassan and Marston, 2010, p. 24). In other words, how consistent the results are when the measurement process from the index is repeated. Stability and consistency are discussed to ensure the coding procedure's reliability (Sekaran and Bougie, 2011). Stability is the ability to repeat the measurement process with the same results over

[17] Binary coding does not consider the quality of disclosed information (Beattie *et al.,* 2004). Additionally, this method does not consider the differences in the disclosed information (Hassan and Marston, 2010).

time. On the other hand, consistency is related to the sub-measurements of the index and the extent to which they measure the same thing (Hassan and Marston, 2010).

To examine the reliability of the index, there are three common ways: inter-coder reliability, test-retest and internal consistency (Hassan and Marston, 2010; Sekaran and Bougie, 2011). Inter-coder reliability needs more than a coder and the results of the coding from a different coder should be similar. The process could not be used in this study, as it was conducted by a single researcher (see: Albassam, 2014).

The second way is test-retest reliability. This method, which ensures the consistency and stability of the index, is employed in this study. After constructing the index, test-retest was done to ensure the reliability of the index at an early stage of the data collection. After collecting the data again, it was checked against a sample of the annual reports and the same result was found.

The third way of ensuring reliability is internal consistency, which is considered to be a common technique for assessing the reliability of the index's themes or categories. Cronbach's Alpha (α) is one of the tests used to measure the internal consistency of the CSR disclosure index (Rahman and Post, 2012). This test aims to examine how well the categories of CSED fit together in the index (Neuendorf, 2002). The results from the Cronbach's alpha test of CSED disclosure and its six categories (environment, human resource, product and consumer, community involvement, economic and other general social categories is (α=.77). According to Nunnally (1978, as cited in (Ali, 2014)), if Cronbach's alpha value is greater than .70, the internal consistency is considered to be high. This value indicates that the consistency of the index measurements is high if the reliability is high.

According to (Bryman and Bell, 2015) validity is required to ensure the index has measured a certain phenomenon in the way it should. Previous studies, such as Botosan (1997), Gul and Leung (2004), have checked the validity of the level of voluntary disclosure score by comparing the study results with previous studies that examine the level of CSR disclosure. This study will use the same method of comparing the results of the study with the previous study. If the results are consistent with the existing literature, the study disclosure of the measurements of the study will be considered valid.

This study aims to examine the effect of the firm characteristics and corporate governance mechanisms on CSED in Saudi Arabia. The previous section identifies CSED and its categories in addition to addressing how it is measured. The next sub-section will provide the measures of the explanatory variables (the firm characteristics and corporate governance mechanism).

4.6.4 Firm characteristics measurements

To examine the effect of the firm characteristics on CSED in Saudi Arabia, each characteristic will be identified in the next sub-section. The measures of each characteristic will be presented as well. The firm characteristics that are included in this study are: firm size, firm age, firm profitability (ROA) and firm leverage. The variables were chosen on a theoretical basis, which is consistent with previous studies (as mentioned in Chapter 3, section 3.7) that have examined the association between the firm characteristics, corporate governance and CSED. Therefore, this facilitates a comparison with the results of the previous studies. More precisely, there are more factors that may influence CSED which are not included in this study for the following reasons: a lack of theoretical justification for the effect of the factors on CSED and the non-availability of some variables that could limit the use of these variables.

Firm Size

Firm size is a significant factor that influences CSED. Different measures have been used to measure it. There are no theoretical reasons to select a particular measure of firm size (Hackston and Milne, 1996). For example, total sales (Alsaeed, 2006; Amran and Devi, 2008; Belkaoui and Karpik, 1989; Cormier et al., 2005; Haniffa and Cooke, 2002; Patten, 2002a; Waddock and Graves, 1997), number of employees (Waddock and Graves, 1997, Stanwick and Stanwick, 1998) and total assets (Waddock and Graves, 1997) are well known measures. The sample consists of financial and non-financial firms in this research. Therefore, firm size is operationalised as the natural log of the book value of a firm’s total assets from the annual reports (Cormier et al., 2005). It is better to use total assets in this case, rather than total sales because it is easier to compare them between financial and non-financial firms than it is with total sales.

Firm age

It is argued that a company's age is a significant factor when investigating CSR disclosure (Camfferman and Cooke, 2002). This study will investigate the influence of company age on CSED, based on the assumption that older companies disclose more social and environmental information over time (Alsaeed, 2006; Cormier et al., 2005; Habbash, 2015) and so use the natural log of total operating years since a company was established (Alsaeed, 2006).

Firm Profitability

Several measures of profitability have been used in previous research, including both accounting-based measures and stock-market based measures. For example, net income, net profit margins, operation earnings, stock price change, sales, ROA, EPS growth and average ROE (McGuire, Sundgren, and Schneeweis, 1988; Ullmann, 1985). In this study, the accounting-based measure (ROA) is used to measure profitability based on previous CSED studies (Amran and Devi, 2008; Belkaoui and Karpik, 1989; Branco and Rodrigues, 2008; Reverte, 2009). ROA is measured by the ratio of total net profit to the calculated total assets (Belkaoui and Karpik, 1989).

Firm leverage

Previous studies have shown that the level of leverage has an effect on corporate disclosure, including social and environmental disclosure (Alsaeed, 2006; Barako et al., 2006a; Reverte, 2009). Leverage is included in the determinants of the level of CSED in this study. This is measured by the ratio of total liabilities to total assets (Belkaoui and Karpik, 1989; Branco and Rodrigues, 2008; Haniffa and Cooke, 2002).

4.6.5 Corporate governance characteristics

Ownership structure

Ownership structure in this study includes government ownership, managers' ownership and foreign ownership. Each of these different forms of ownership will be discussed in this sub-section. **Government ownership:** previous studies have found that government ownership affects CSED (see: Amran and Devi, 2007; Eng and Mak, 2003; Habbash, 2015). Government ownership is measured as the ratio of shares held by government institutions, which is consistent with CSED previous studies (Albassam, 2014; Habbash, 2015). **Managers' ownership**: it is argued that this is associated with CSED (Belal and Owen, 2007; Islam and Deegan, 2008). It is measured as the ratio of shares held by executive and non-independent directors. **Foreign ownership**: this is another type of ownership that has an effect on CSED, as argued by (Amran and Devi, 2008; Haniffa and Cooke, 2002). It is measured by the ratio of shares held by foreign institutions.

Size of the board of directors

It is argued the size of the board of director has an effect on the level of CSED (Khan, 2010; Said et al., 2009; Siregar and Bachtiar, 2010). It is measured by the number of directors on the board.

Board independence

Previous studies have shown that the proportion of independent directors on the board is associated with CSED (Huafang and Jianguo, 2007; Jo and Harjoto, 2012; Khan et al., 2012). It is measured by the proportion of independent member on the board of directors (Haniffa and Cooke, 2005).

Audit firm size

Several studies examined the association between audit firm size and CSED, such as Barako et al. (2006), Alsaeed (2006) and Habbash (2015) Khan et al. (2012), Al-Janadi et al. (2013). Audit firm size is a variable measured by using a dummy variable where 1 is presented if the company is audited by one of the big four[18] and 0 otherwise

CEO role duality

CEO duality is a significant factor that needs to be investigated in relation to CSED. There have been studies by prior studies on this, including Haniffa and Cooke (2002),

[18] The big four auditing companies are Deloitte and Touch, Ernest and Young, KPMG and PricewaterhouseCoopers.

Eng and Mak (2003), Michelon and Parbonetti (2012), Al-Janadi et al. (2013), Giannarakis et al. (2014) and Habbash (2015). CEO duality occurs when the Chief Executive Officer (CEO) role is merged with the Chairman's. It is measured by using a dummy variable; 1 if CEO is Chairman and 0 otherwise Haniffa and Cooke (2005).

Table 4.1: Explanatory variable measures and date sources

Explanatory factor	Theoretical perspectives	Measures	Data source
Company size	Stakeholder, legitimacy and institutional theories	Natural log of company's total assets	Bloomberg database
Company age	Legitimacy and institutional theories	Natural log of total of companies operating years since established	Saudi Stock Market (Tadawul) website
Profitability (ROA)	Stakeholder and legitimacy theories	Ratio of total net profit to total assets	Bloomberg database
Leverage	Stakeholder, legitimacy and agency theories	Ratio of total liabilities to total assets	Bloomberg database
Governmental ownership	Institutional and agency theory	Ratio of shares held by government institutions	Annual reports
Managerial ownership	Agency, stakeholder, legitimacy and institutional theories	Ratio of shares held by executive and non-independent directors	Annual reports
Foreign ownership	Legitimacy and institutional theories	Ratio of shares held by foreign institutions	Annual reports
Board size	Agency theory	The number of directors on the board	Annual reports
Board independence	Stakeholder, legitimacy and agency theories	The proportion of independent members on the board of directors	Annual reports
Audit firm size	Agency and legitimacy theories	1 if the company is audited by one of the big four[19] and 0 otherwise	Annual reports
CEO role duality	Agency theory	1 if CEO is Chairman and 0 otherwise	Annual reports

[19] The big four auditing companies are Deloitte and Touch, Ernest and Young, KPMG and PriceaterhouseCoopers.

The table above presents a summary of the explanatory factors that have been used in this study to explain variations in the level of CSED. The table includes the theoretical perspective that justifies using the factors, the used measures and the data source.

After discussing the data collection method and the variable measurement used to achieve the main aim of the study's objectives, statistical analysis techniques will be discussed in the following section.

4.7 Statistical analysis techniques:

The main aim of this study is to investigate CSED in Saudi Arabia through different objectives. The two objectives are to analyse the extent and the nature of CSED in Saudi Arabia. These will be addressed by answering *RQ1: What is the extent and nature of the social and environmental information reported by the Saudi-listed companies?* This research question will be addressed by using descriptive statistics to analyse to what extent Saudi-listed companies are reporting social and environmental disclosure in general, and what categories they are reporting specifically. This will be done in Chapter 5, which is divided into two main sections. The first analyses the extent and nature of CSED through detailed analyses of the categories and information that Saudi-listed companies are disclosing.

The study objectives are also related to the determinants of CSED in Saudi Arabia. It will be addressed through *RQ2: What are the determinants of the level of CSED reported by Saudi-listed companies?* This research question includes 2 sub-questions[20] that are related to firm characteristics and corporate governance mechanisms, which will be addressed in Chapter 6. To answer this research question and sub-questions, 11 hypotheses[21] have been developed in Chapter 3 (section 3.7). Different statistical techniques will be used to address the second research question and test the related hypothesis. Descriptive statistics, ANOVA (Analysis of Variance)

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[20] *RQ2.a: Do corporate characteristics of Saudi Arabian-listed companies affect the level of the CSED?* And *RQ2.b: Do corporate governance mechanisms of Saudi Arabian listed companies affect the level of the CSED?*

[21] Hypotheses that test the correlation between firm characteristics (H1, H2, H3, H4), corporate governance mechanisms (H5, H6, H7, H8, H9, H10, H11) and CSED.

and T-test are used (for more details see Chapter 6). Following the previous studies, OLS regression (multivariate)[22] is employed to examine the determinants of CSED because of the nature of the variables (continues and dummy) and assuming that all relations are linear (see: Branco and Rodrigues, 2008; Reverte, 2009). Furthermore, OLS regression could be used, even if the independent variables are correlated (at an acceptable level) with one another (Cockes et al, 2006).

Equation 1 presents the empirical model 1

$$\boldsymbol{CSED = \beta 1 + \beta 1FS + \beta 2FA + \beta 3Prof + \beta 4Lev + \beta 5GOvOwn + \beta 6ManOwn + \beta 7ForOwn + \beta 8BS + \beta 9BInd + \beta 10AudFS + \beta 11CEODual + \varepsilon}$$

Where:

CSED refers to the total of social and environmental disclosure index (including the six categories[23]. **FS** stands for firm size, which is measured by the natural log of company's total assets (continues). **FA** is firm age, which is found by using the natural log of companies' operating years since they were established (continues). **Prof** stands for profitability, represented as return on assets (ROA). This is measured by the ratio of total net profit to total assets (continues). **Lev** is leverage, which is calculated by the ratio of total liabilities to total assets (continues). **GovOwn** is government ownership, measured by the ratio of shares held by government institutions (continues). **ManOwn** stands for managerial ownership, measured by the ratio of shares held by the executive and non-independent directors (continues). **ForOwn** is foreign ownership, measured by the ratio of shares held by foreign institutions (continues). **BS** is board size, characterised by the number of directors on the board (continues). **BInd** stands for the proportion of independent members of the board of directors (continues). **CEODual** is the CEO role duality that is revealed in 1 if the company is audited by one of the big four and 0 otherwise (dummy variables). **AudFS**

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[22] Ordinary least squares (OLS) is one of the most commonly used prediction techniques. The steps prior to the regression, such as the data preparation and the OLS assumptions, will be discussed in Chapter 6 before running the regression.

[23] The six categories are: environmental, human resource, product and consumer, community involvement, economic and other social disclosure

denotes audit firm size, revealed in 1 if the CEO is Chairman and 0 otherwise (dummy variable). **β** is the slopes of the independent variables, while **β0** is a constant or the value of CSED and **ε** is the error term, normally distributed about a mean of 0.

The study objectives are related to the determinants of each category of the CSED in Saudi Arabia. To achieve these objective, RQ3 (which will be addressed in Chapter 7) is*: What are the determinants of the level of CSED in terms of the categories that are reported by Saudi Arabian listed companies?* Under this research question, 2 sub-questions[24], related to the firm characteristics and corporate governance mechanisms, need to be addressed, as well as 23 hypotheses[25] (Chapter 7, section 7.5). In order to do this, several statistical analyses have been employed, such as descriptive statistics, ANOVA (Analysis of Variance) and T-test (for details see Chapter 7). Furthermore, negative binomial regression is employed to examine the determinants of each CSED category. It is based on the nature of the dependent variables, which are the 6 categories of CSED (environmental disclosure, human resources disclosure, products and consumers disclosure, community involvement disclosure, economic disclosure and general disclosure). These dependent variables are limited count variable, with most of observations zeros. The variance is larger than the mean, which results in not a normally distributed sample. In this case, a simple ordinary least squares regression analysis yields biased results (Hausman et al., 1984; Crepon and Duguet, 1997; Greene, 1997). As a result, a negative binomial regression model (for details see Chapter 7) is more appropriate and is widely used in analysing such types of count data (e.g. Frome et al., 1973; Frome 1983; Haberman 1974; Holford 1983).

Six negative binomial models will be developed to investigate the determinants of the level of CSED categories. Each category has its own model, as discussed below:

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[24] *RQ3.a: Do corporate characteristics of the Saudi Arabian listed companies affect the level of each category of CSED? And RQ3.b: Do corporate governance characteristics of the Saudi Arabian listed companies affect the level of each category of CSED?*

[25]Hypotheses related to each category with firm characteristics and corporate governance mechanisms.

Equations 2, 3, 4, 5, 6 and 7 present the empirical model and equations 2, 3, 4, 5, 6 and 7 are related to the CSED categories, environmental disclosure, human resources, product and consumer, community involvement, economic and general social disclosure consecutively:

$$ED = \beta 1 + \beta 1FS + \beta 2FA + \beta 3Prof + \beta 4Lev + \beta 5GOvOwn + \beta 6ManOwn + \beta 7ForOwn + \beta 8BS + \beta 9BInd + \beta 10AudFS + \beta 11CEODual + \varepsilon$$

$$HRD = \beta 1 + \beta 1FS + \beta 2FA + \beta 3Prof + \beta 4Lev + \beta 5GOvOwn + \beta 6ManOwn + \beta 7ForOwn + \beta 8BS + \beta 9BInd + \beta 10AudFS + \beta 11CEODual + \varepsilon$$

$$PCD = \beta 1 + \beta 1FS + \beta 2FA + \beta 3Prof + \beta 4Lev + \beta 5GOvOwn + \beta 6ManOwn + \beta 7ForOwn + \beta 8BS + \beta 9BInd + \beta 10AudFS + \beta 11CEODual + \varepsilon$$

$$CID = \beta 1 + \beta 1FS + \beta 2FA + \beta 3Prof + \beta 4Lev + \beta 5GOvOwn + \beta 6ManOwn + \beta 7ForOwn + \beta 8BS + \beta 9BInd + \beta 10AudFS + \beta 11CEODual + \varepsilon$$

$$ED = \beta 1 + \beta 1FS + \beta 2FA + \beta 3Prof + \beta 4Lev + \beta 5GOvOwn + \beta 6ManOwn + \beta 7ForOwn + \beta 8BS + \beta 9BInd + \beta 10AudFS + \beta 11CEODual + \varepsilon$$

$$GD = \beta 1 + \beta 1FS + \beta 2FA + \beta 3Prof + \beta 4Lev + \beta 5GOvOwn + \beta 6ManOwn + \beta 7ForOwn + \beta 8BS + \beta 9BInd + \beta 10AudFS + \beta 11CEODual + \varepsilon$$

Where:

ED is the total of environmental disclosure index (count); **HRD** is the total of human resource disclosure index (count); **PCD** is the total of product and consumer disclosure index (count); **CID** is the total of community involvement disclosure index (count); **ED** is the total of economic disclosure index (count); **GD** is the total of general social disclosure index (count). **FS** stands for firm size, which is measured by the natural log of company's total assets (continues), and **FA** is firm age, which is found by using the natural log of companies' operating years since they were established (continues). **Prof** stands for profitability represented as the return on assets (ROA). This is measured by the ratio of total net profit to total assets (continues). **Lev** is leverage, which is calculated by the ratio of total liabilities to total assets (continues). **GovOwn** is government ownership, measured by the ratio of shares held by government institutions (continues). **ManOwn** stands for managerial ownership, measured by the ratio of shares held by executive and non-independent directors (continues). **ForOwn** is foreign ownership, measured by the ratio of shares held by foreign institutions (continues). **BS** is board size, characterised by the number of directors on the board (continues). **BInd** stands for the proportion of independent members of the board of directors (continues). **CEODual** is the CEO role duality that is revealed in 1 if the company is audited by one of the big four and 0 otherwise (dummy variables). **AudFS** denotes audit firm size revealed in 1 if the CEO is Chairman and 0 otherwise (dummy variable). **β** is the slopes of the independent variables, while **β0** is a constant or the value of CSED and **ε** is the error term, normally distributed about a mean of 0.

4.8 Chapter summary

This chapter discussed the research methodology and method that is employed to achieve the study's main aim and objectives. The main aim of this research is to investigate CSED practice in Saudi Arabia. Several objectives are addressed to achieve this aim, including the examination of the determinant of CSED and its categories. This research has a positivist approach as it examines the correlation between CSED, the firm characteristics and corporate governance mechanisms. It started with a review of the literature and relevant theories, then developed the hypothesis, followed by data collection and analysis, and finally linked the results back to the theories and literature. Therefore, a deductive approach is followed. Content analysis is the technique used in this research to collect the data from the Saudi-listed companies by using the CSED index. The index consists of 6 main categories, which are environmental, human resources, product and consumer, community involvements, economic and general social disclosure. The reliability and validity of the index are discussed in this chapter as well. The sample of the study consists of all the Saudi-listed companies at the end of the calendar year 2012. This chapter also focuses on the statistical analysis techniques used to test the hypotheses multivariate regression and negative binomial regression analysis.

The next chapter, Chapter 5, will discuss the extent and the nature of CSED in Saudi-listed companies.

Chapter 5: CSED analysis

5.1 Introduction

This chapter will discuss and analyse the results from the content analysis of annual reports of the Saudi listed companies. An index has been constructed in this study to investigate corporate social and environmental disclosure in Saudi Arabia. This index includes six main categories which are environmental disclosure, human resources disclosure, product and consumer disclosure, community involvement disclosure, contribution to economy disclosure and other social disclosure. This chapter has two main objectives to achieve; the first is to examine the extent of the CSED using content analysis to evaluate the annual reports of the Saudi listed companies, providing statistical analysis. The second is to analyse the nature of the CSED in terms of the types of categories that have been reported by Saudi Arabian listed companies. This analysis will provide an overview of CSED practice in Saudi Arabia and by doing so, it responds to the first research question which is "what *is the extent and the nature of the social and environmental information that is reported by the Saudi-listed companies?"*. This chapter will also discuss the reason behind the variation in the level of categories disclosed by the Saudi-listed companies based on theories. The detailed analysis of the extent and the nature of CSED in Saudi Arabia will add to the literature. Particularly, as far as the author knows, this is the first study to analyse in depth the nature of CSED in Saudi Arabia. Each category and sub-category is defined, statistically described and analysed with examples provided from the companies' disclosure. The chapter is divided into three sections; section 5.2 presents the extent of corporate social and environmental disclosure by presenting the descriptive statistics. This is followed by section 5.3, which analyses the nature of CSED categories reported by Saudi listed companies including the sub-categories as well as providing supporting evidence from companies' reports. This section includes six sub-sections for the six main categories. Finally, a summary of the key findings is concluded in section 5.4.

5.2 The extent of corporate social and environmental disclosure

This section presents descriptive statistics of corporate social and environmental disclosure (CSED) by Saudi listed companies aiming to address the first part of the first research question. It concerns the extent of CSED in the Saudi context by analysing listed companies' annual reports using a constructed check list (index). The descriptive statistics show that a significant percentage of Saudi listed companies disclosed information on social and environmental practices in their annual reports of the taxable years ending in 2012. A total of 70% of the Saudi listed companies report social and environmental information with an average of 7.22 information items (with a minimum of 1 item and a maximum of 66). In comparison to previous studies conducted in Saudi Arabia, this percentage is considered high. As mentioned in Literature), previous studies have proven that the level of CSED has increased in Saudi Arabia. It increased from 14% in 2006 and 2007 (Al-Janadi et al., 2013) to 16% in 2008 (Macarulla and Talalweh, 2012) then 21.86% (online disclosure) (Khasharmeh and Desoky, 2013) in Gulf cooperative countries including 44 Saudi companies and finally in the most recent study 24% (Habbash, 2015).

The percentage of CSED found in this study is considered high (in comparison to previous studies in Saudi Arabia) as there is no legal enforcement upon companies to report social and environmental information. To an extent, there are however, legal enforcements upon performing some of the activities that can be considered as social responsibility. Most of the enforcement regulations fall under the human resource category and include information such as the minimum wage, working hours and environment and retirement system. This could explain why the human resource category in the index has the highest disclosure proportion which is 41% in comparison to other categories as shown in table 5.1. The Ministry of labour issued The Saudi Labour Law in 2005 (amended in 2015) to organize the relationship between the companies and employees to maximize the benefits and reduce problems. The labour law addresses different issues such as: the employment system, working hours, health and safety, the employment of disabled people, the retirement system, employment contracts and training systems. It can be shown that there are some similarities between the governmental labour law and the disclosed items, which will be discussed later in this chapter. This could explain the reason why 61% of Saudi listed companies that are reporting social and environmental activities report human resource items.

Table 5.1: Descriptive statistics of CSED categories disclosed by Saudi-listed companies

CSED Category	CSED Items as in Index	Percentage of disclosed items	No. of companies Disclosing	Percentage of total Sample
Environmental disclosure	87	7.21	29	17.8
Human resource disclosure	500	41.46	100	61.3
Products and consumer disclosure	35	2.90	22	13.5
community involvement disclosure	295	24.46	71	43.6
Economic disclosure	243	20.15	87	53.4
General disclosure	46	3.81	31	19.1
Total		100		

Community involvement disclosure and economic disclosure have similar percentages as shown in table 5.1 (community involvement 24% and economic disclosure 20%). Since Saudi Arabia is a traditional Islamic country, 24% is an expected percentage for community involvement disclosed items in the CSED index. From an Islamic perspective, companies are required to contribute positively to society by making donations to charities or via community contribution. Moreover, Islamic values promote group or community interests over individual interests; therefore, companies are required to pay attention to the environment and the community when operating as a response to societal expectations (norms, values and beliefs). In addition, The Department of Zakat and Income Tax (DZIT)[26] deduct

26 (DZIT) is a government agency which reports to the Ministry of Finance where companies pay their zakat and according to Article1 in Zakat royal decree: "Zakat duty shall be collected in full in accordance with the provisions of Islamic law (Shariah) from all Saudi persons, shareholders of Saudi companies whose all shareholders are Saudi, and Saudi shareholders of joint companies whose shareholders are Saudi and non-Saudi" (GAZT, 2015).

companies' donations from companies "Zakat"[27] according to Article 11[28]. This could encourage companies to be more socially responsible and to donate to the authorized charities as they will be paying this amount anyway, either to charities or Zakat. The previous reasons could explain why almost 44% of the sample companies that are disclosing social and environmental activities in the CSED index are disclosing community involvement activities (Figure 5.1). This significant percentage can be explained by the companies' intention to gain or maintain their legitimacy to operate by satisfying relative stakeholders and society expectations and by interacting positively with the community as argued by Gray et al. (1995). Additionally, responding to different institutional pressures such as the government or global regulatory requirements as well as peer pressure (coercive, normative and mimetic isomorphism) could also explain the high percentage of Saudi listed companies disclosing social and environmental information. These results are consistent with evidence from developing countries where human resource and community involvement disclosure occupied the highest percentage in corporate and social disclosure (for example see Imam, 2000; Islam and Deegan, 2007).

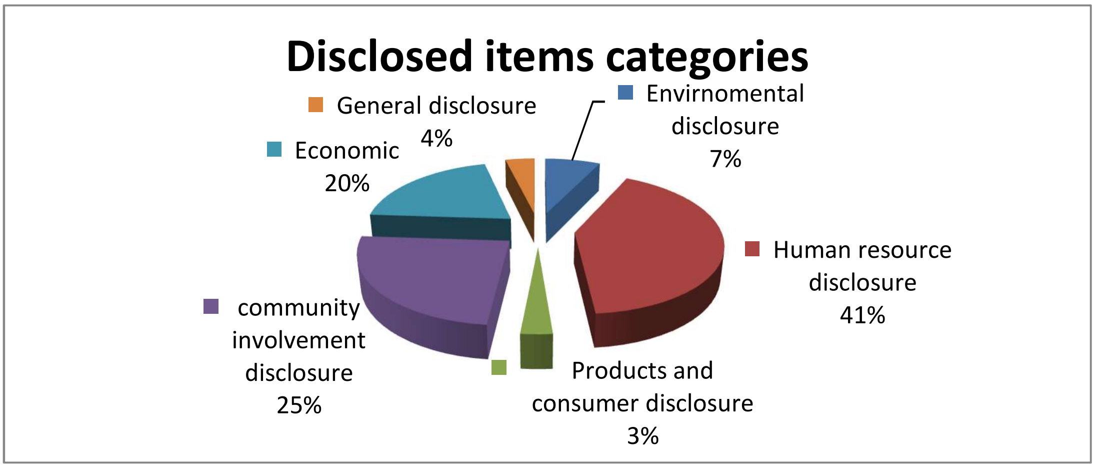

Figure 5.1: The percentage of CSED categories disclosed in Saudi-listed companies' annual reports of the taxable years ending in 2012

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27 Zakat is the second pillar in Islam where Muslim people who are financially capable pay 2.5% to specific groups of people; it is an Islamic social tax (Kamla et al., 2006). Companies are also required to pay Zakat to the government as a type of tax.

28 Article 11 Donations: when the tax base is counted for each taxpayer, a deduction is allowed for donations paid during the taxable year to public bodies, charities licensed in the Kingdom(GAZT, 2015).

Economic disclosure ranks third in terms of the total CSED items disclosed with 20% of the total disclosure and a high percentage of companies reporting on economic 14). The reason why most of the companies report on economic items is that Saudisation (job nationalisation) is under this category. The Saudi Labour Ministry has been determined to encourage companies to nationalise jobs by either recruiting new Saudi staff or replacing foreign employees with local employees in occupied jobs. This law was introduced to reduce the unemployment rate and ensure that there will be ample skills among the locals. The Saudi Labour Ministry also imposes fines on companies that do not comply with this requirement. Furthermore, companies that are not following Saudisation regulations may be prohibited from receiving any governmental benefits while companies following Saudisation requirements are rewarded by the Saudi government. 53% of Saudi listed companies that report corporate social and environmental disclosure reported economic items, this percentage is considered statistically significant.

The frequency at which environmental issues are reported by Saudi companies is much lower and comprises around only 7% of the total disclosure, whereas only 18% of all companies report environmental disclosure. The low percentage could be due to the high cost of environmental anticipation, and the fact that regulations dealing with environmental activities are not firm and usually not enforced. The last two categories, product and consumer disclosure (3%) and general disclosure (4%) have the lowest percentages (Figure 5.1 and Table 5.1).

Overall, this section presents the descriptive analysis of CSED in general and the main categories in particular that were disclosed by Saudi-listed companies in 2012 annual reports. The results indicate that 70% of Saudi-listed companies disclose social and environmental disclosure with variation in categories disclosure percentage. Human resource ranks in first place in terms of the highest level of disclosure followed by community involvement disclosure then economic disclosure while environmental disclosure, product and consumer disclosure and general social disclosure are the least reported issues consecutively. The next section provides an in-depth analysis of the nature of CSED by closely examining CSED categories and sub-categories supported by evidence from Saudi-listed companies' annual reports.

5.3 The nature of categories of corporate social and environmental disclosure

This section aims to comprehensively analyse the nature of corporate social and environmental disclosure in Saudi listed annual reports, to investigate which categories and sub-categories they disclose and why. These categories and sub-categories form the CSED index for this study based on GRI 3.1 (2011), the check list of Hackston and Milne (1996) and some Saudi laws and regulations related to the Saudi context, as mentioned in chapter 4. The categories and sub-categories included in this section are the categories that were disclosed by the Saudi listed companies in the study sample (evidence from Saudi-listed companies' annual reports are provided). The other categories in the study Index that haven't been disclosed are not mentioned in this chapter. This section is organized as follows; 5.3.1 is environmental disclosure analysis including five sub-categories. 5.3.2 Analyse the disclosure related to human resource information including five sub-categories, followed by section 5.3.3 which analyses the third category, product and consumer disclosure. This category includes three sub-categories while 5.3.4 analyses community involvement disclosure which comprises of five sub-categories. Economic disclosure is analysed in 5.3.5 consisting of two sub-categories, and other social disclosure is analysed in 5.3.6.

5.3.1 Environmental disclosure analysis:

The environmental disclosure category includes any environment-related disclosure. This category, in general, has been disclosed by 29 companies from the sample which is 18% of the total companies reporting CSED (Table 5.1). The environmental disclosure category includes pollution, conservation of natural resources, energy, aesthetics, biodiversity and other environmental disclosure as sub-categories. Each sub-category, as mentioned above, includes more items which will be discussed in a separate sub section as follows:

Pollution prevention or reduction

One of the CSED index sub-categories of this study is pollution control or reduction including all types of pollution. This sub-category reflects companies' concerns about the environment especially the prevention or reduction of pollution in different ways. This item has been disclosed by 19 companies (Table 5.2). The National shipping company of Saudi Arabia in the transport industry is one of the companies that is disclosing pollution reduction in its annual report. As shown below their statement indicates their commitment to international environmental organizations regulations in pollution reduction. Although it is voluntary to disclose CSE information, as a result of operating in the transport sector The National shipping company of Saudi Arabia is required to give more attention to the environment in order to prove a company's legitimacy.

> *"The company is committed to the strict environmental regulations that are compatible with the standards of the international environmental organizations to protect the hydrological environment and climate by reducing the pollution resulted from engines and equipment they use" (National Shipping Company of Saudi Arabia, P:34)*

Table 5.2: Descriptive statistics of environmental disclosure sub-categories disclosed by Saudi listed companies

Environmental disclosure Sub-category	No. of companies disclosing sub-categories	percentage of companies disclosing sub-categories
Pollution prevention or reduction	19	12.1 %
Conservation of natural resources	14	8.9 %
Energy conservation	4	2.5 %
Aesthetics	6	3.8 %
Biodiversity and other environmental disclosure	5	0.64 %

The Saudi Electricity Company is the only organization which has disclosed the amount spent on a company's research and development for pollution education. As per their statement below they pay attention to research that helps to find enhanced solutions for improving the quality of power generation (without pollution) as well as developing the service. Since they are both one of the largest companies in Saudi Arabia with state ownership and a major electricity provider, stakeholders and the local community expect them to contribute to the environment as suggested by stakeholder and legitimacy theory. Institutional theory suggests that they are also expected to adhere to national and international standards when operating.

> *"The **c**ooperation of the company with local and international universities as well as with research centres to find suitable solutions to the problem of carbonic ashes" (P: 61), "The company is concerned with planning and developing the quality of the current electricity power generator and the future generators*" (*Saudi Electricity Company***,** *P: 75).*

The company's report on their non-polluting operations either voluntary or in compliance with pollution laws and regulations (i.e. ISO 14000, GOTS). This issue has been disclosed by many companies (e.g. 10 companies). As an example, The National Shipping Company of Saudi Arabia and Saudi Cement reported the same issue. As shown below, both companies stated that they are applying the international standards and are certified for their non-polluting operation.

> *"The company takes into account improving its operations in oil and gas transport by applying the standards of (ISO 9001:2008)" (The National Shipping Company of Saudi Arabia, P: 20).*

> *"The company continues its commitment in applying the global quality standards and maintained its (ISO 9001:2008) certificates" (Saudi Cement, P: 11).*

Using new equipment to reduce pollution is another issue that 4 companies have disclosed in their annual reports. For example, and as shown below, Saudi Cement Company and Saudi Electricity Company disclosed disposing of machines or materials which negatively affect the environment or using new equipment to reduce pollution.

> *"New equipment that is compatible with the latest technology to reduce dust emission for an industrial environment that exceeds the requirement*

of the Saudi Presidency of Metrology and the environment (PME)" (Saudi Cement company, P: 8).

"The company is using the Flue Gas Desulphurization (FGD) technique instead of burning fuel to decrease Oxides of sulfur gases that pollute the air while producing energy" (Saudi Electricity Company, P: 102).

Both companies, Saudi Cement Company and Saudi Electricity Company, are operating in sectors that have a direct effect on the environment (cement and energy sectors). Legitimacy theory suggests that they are therefore expected to pay attention to the environment and to the disclosure of further environmental information to prove their legitimacy.

Similarly, Saudi Cement Company and Northern Region Cement Company reported the reduction of greenhouse gas emissions and reductions achieved, as displayed below. Institutional theory explains that comparable environmental issues are disclosed by companies operating in the same sector. Mimetic pressures from companies operating in the same industry encourage companies to disclose similar issues that concern stakeholders.

"The company is keen to carry out regular maintenance for the filters which purifies the air emitted from the production lines" (Northern Region Cement company, P: 11)

In addition to the previous sub-categories, supporting anti-litter campaigns, the Sustainability program and using environmental harmless materials are additional items that have each been reported by only one Saudi- listed companies.

<u>Conservation of natural resources</u>

This sub-category concerns a companies' natural resource conservation such as recycling (all types of recycling, i.e. water, air etc.) and using recycled materials, wastes recycling, installing or upgrading of systems to conserve natural resources and conservation policies and strategies. Regarding the issue of the conservation of natural resources, 14 companies have reported related items (Table 5.3). As stated below Saudi Kayan Petrochemical Company is one of the companies that reported on natural resources conservation. The company revealed that it considers environmental protection including natural resources conservation, recycling and waste reduction. When planning a company's strategy, all previous aspects are related to natural resources conservation.

> *"The company's strategy for health and safety and environmental protection includes the preservation of natural resources, reducing waste, air, water and soil pollutants. In addition to recycling or disposal of waste in a safe manner which is not harmful for the environment" (Saudi Kayan Company, P:20)*

Similarly, Najran Cement Company reported that the company is concerned with the efficient use of material resource in the manufacturing process coupled with the amount of natural resources efficiently used under natural resources conservation as shown below. They stated that they signed a contract with a company aiming to exploit the wasted thermal energy. They also stated that they did this in order to comply with governmental guidance and international standards which encourage~~s~~ the use of alternative energy.

> *"In order to comply with governmental guidance in encouraging the use of alternative energy in line with the international effort to reduce the gas emission and pollution the company sign a contract with a Chinese company to start a project to exploit the wasted thermal energy" Najran Cement Company, P:12).*

Both companies are industrial companies (pharmaceutical and cement) and both are directly affecting the environment. Based on legitimacy, stakeholder and institutional theories companies operating in industrial sectors are expected to disclose more environmental issues. They do so to prove to the government, stakeholders and the local community that they are legitimate, environmentally friendly and environmentally responsible. They prove their legitimacy by reporting that they follow national and international standards when operating.

<u>Energy conservation</u>

The conservation of energy disclosure including companies' policies in energy, the amount of energy saved and initiatives to use renewable energy are the items disclosed by 4 companies (Table 5.3). Filling and Packing Company is one of the companies that reported energy conservation. They stated that they are using solar energy to reduce electrical energy as shown below:

> *"The Company reduces its electrical energy by utilizing the use of solar energy" (Filling and Packing Company, P: 12).*

As shown below Najran Cement Company also reported the amount of money spent on energy conservation programs to testify that they are concerned with energy conservation and are environmentally responsible, particularly since they're an industrial organisation:

> *"The wasted thermal energy exploitation project is expected to be completed by 2013 with the cost of 168 million Saudi Riyals" (Najran Cement Company, P: 12)*

Most of the items in this sub-category have not been disclosed by Saudi listed companies. For example, research aimed at improving the energy efficiency of products, disclosing a company's concerns about energy shortage, running energy saving programmes for employees, developing cleaner energy technologies and awards received for energy saving. This could be a result of the expense of applying these strategies and requires forward planning. Only large highly profitable companies would be able to afford the implementation of such major changes.

Aesthetics

This sub-category relates to activities concerned with a companies' contribution to the beautifying of the environment in which they operate. For example, using art or sculptures or planting trees (not related to pollution reduction). Furthermore, cleaning (includes sea costs, or any other form of cleaning), designing facilities harmonious with the environment, restoring historical buildings/structures are issues related to the aesthetics sub-category. Only 6 companies reported on activities related to aesthetics (Table 5.3).

Biodiversity and other environmental disclosure

This relates to companies disclosing biodiversity and general environmental activities such as wildlife conservation, environmental protection (in general) and general environmental disclosure such as awareness programs (e.g. earth day, world environmental day). Out of the Saudi listed companies only 5 disclosed items in relation to biodiversity and other general environmental disclosure (Table 5.3).

The Environmental disclosure category is not popular in the annual reports of Saudi-listed companies. The majority of the companies that reported this category are industrial companies that have either a direct or indirect effect on the environment. Implementing environmentally friendly operating systems including equipment is said to incur significant expenses. The fact that companies should exhibit a greater awareness of environmental issues when operating is considered a new but growing phenomenon. The next section carries out an analysis of human resource disclosure.

5.3.2 Human resource disclosure:

As previously mentioned, human resources disclosure is the most disclosed category by Saudi listed companies, since 100 companies have reported human resource activities, 61% of the companies reported social and environmental disclosure (Table 5.1).

Table 5.3: Descriptive statistics of human resources disclosure sub-categories disclosed by Saudi listed companies

Sub-category	Number of companies disclosing	Percentage of all disclosing companies
Employees training and development	75	48 %
Employees pay and benefits	53	34 %
Employees health and safety	26	17 %
Equal opportunities	10	6.4 %
Employees social life	6	3.8 %

This category includes all activities related to human resources in the company such as employee training and development, pay and benefits, employee contribution and association in the company, employee health and safety, the employment system and measures of the system, employee equal opportunities and employee social life. Each sub-category will be discussed in the following sub sections:

Employees training and development

75 Saudi listed companies, equalling 48% of the companies that reported social and environmental information (Table 5.4) have disclosed different items related to employee training and development. For example, providing different types of training (in-house training, outside training, online training and abroad training) are items related to this sub-category. The Savola Group's annual report reveals that the company has different courses and workshops, as stated below:

> *"During 2012 training courses and workshops were held in all sectors"* *(Savola Group, P: 25)*

The Savola Group reported another item which is collaboration with a training expert (national and international)

> *"the academy has launched an international program in cooperation with "Thunderbird University" for management offering a Master's degree for the employees in Business Administration"* *(Savola Group, P:32)*

Providing on-going learning and development programs for employees, providing the appropriate training to develop employees' skills and qualifications, establishing or developing training centres, on-going plans for employees' development are all items documented by Saudi companies in their annual reports. Employee's performance appraisals and assessment, time and amount spent on training~~s~~, courses, workshops and development programs, the number of employees who underwent training~~s~~, courses, workshops and development programs, young employees training programs, knowledge transform programs and mentoring professionals programs. Regarding employee development programs ran by the company's academy, Saudi Basic Industries Corporation discloses as shown below that the company has its own academy for the purpose of employee' development and training:

> *"Sabic Academy makes a significant contribution towards supporting the development of employees through highly concentrated training programs designed specially to increase employees' qualifications"* *(Saudi Basic Industries Corporation P: 32)*

Issues such as collaboration with universities and institutions regarding training programs, helping employees to gain more experience by sending them to work in the company's overseas branches, supporting employees to continue their studies and get a higher degree and sponsoring employees to continue their studies abroad have also been disclosed by Saudi companies. The Savola Group is one of the companies that reported the sponsoring of young employees to continue their studies abroad, as shown below. In addition, they reported the number of students who joined this program and how many of them graduated:

> *"The company seeks to attract young gifted secondary school students and sponsor them to continue their Bachelor degree abroad to meet the company's need in specific fields. In 2012 200 students joined the program and 80 students graduated" (Savola Group, P: 33)*

<u>Employees pay and benefits</u>

Issues related to employee~~s~~ pay and benefits have been reported by 53 Saudi listed companies (34% of the companies that are reporting social and environmental information) (Table 5.4). This sub-category includes payments and benefits awarded to the employees by the company such as ability and performance based rewards, as reported below by Saudi British Bank. They stated that the company adapted a performance based bonus strategy and invested in a performance management program:

> *"SAB continues to invest in their Performance management system to ensure achievement of high performance, this includes the process of performance assessment and the adaptation of a performance based bonus strategy"* (Saudi British Bank, P: 36)

Moreover, companies reported on performance based incentives given to employees to encourage them to perform better and to guarantee their loyalty. Regarding this issue Riyadh Bank stated that through their incentive and bonus program, the bank aims to guarantee employee~~s~~ loyalty, as shown below:

> *" the bank works hard to build employee trust and aims to guarantee their loyalty to the bank via incentive programs, bonus and saving investment programs" (Riyadh Bank, P27,28).*

Saudi-listed companies documented that companies offered a shares and options scheme to increase their employees’ loyalty and tighten job security. For example, Nama Chemicals Company reported that the company offered shares to its employees with affordable instalments:

> *“In 2012 the company issued more shares to give employees who were not entitled to own shares during the previous IPO the opportunity to do so. The employees’ share scheme aims to give employees the chance to own Nama shares by making affordable instalments. This action was due to the company’s awareness of the importance of employee~~s~~’ job security” (Nama Chemicals Company, P: 15).*

Company benefits such as employees’ personal saving and investment funds and staff loan programs (including cash, vehicles and land) are further areas reported by Saudi-listed companies, in addition to the provision of staff accommodation and staff home ownership schemes. In this regard, Riyadh Bank reported providing saving and investment fund for employees:

> *“The bank works on building trust between employees and the bank aiming to guarantee their loyalty to the bank through incentive programs in addition to bonus and saving investment programs” (Riyadh Bank, P:27,28).*

Rabigh Refining and Petrochemical Company reported house ownership schemes as a form of employee pay and benefits:

> *“The board of directors has approved employee’ house ownership scheme. The aim of this scheme is to provide stability for employees and locate them near to the company’s facilities which should have a positive impact on their performance and loyalty” (Rabigh Refining and Petrochemical Company, P: 21).*

In their annual reports, Saudi Steel Pipe Company disclosed another item under the employee pay and benefits sub-category which is offering interest free loans to employees:

> *“The company reserves a budget equivalent to half of the employment allowance for the interest free loan scheme. This program aims to*

increase employees' loyalty, this program includes loans for the purchase of land, houses, and vehicles as well as marriage and emergency loans. The balance of employee~~s~~' loans in 2012 reached 14,609,596 SR with 234 employees benefiting from this scheme" (Saudi Steel Pipe Company, p: 14).

This item discusses the assistance and guidance offered by companies to employees nearing retirement in addition to funds plans, this benefit is also available for those who have been made redundant. The Employees pay and benefits sub-category includes companies offering assistance to new employees. For example, paying 2 basic salaries in addition to providing a social security fund. The Saudi Research and Marketing Group reported providing an emergency fund for employees facing exceptional circumstances:

"the company launched an emergency fund for employees who face emergency circumstances and problems seeking to strengthen the relationship between the company and its employees in addition to increasing employee loyalty to the company" (Saudi Research and Marketing Group, P:19).

Another item in this sub-category is providing compensation in the event of death or disability. In this regard, the Savola Group reported this item in their annual report:

"the company continued to offer its support during 2012 to employees by forming an agreement with Saudi British Bank to pay 24 salaries as compensation to the employee in case of death or disability" (Savola Group, p:26).

Employees health and safety

The Health and safety sub-category was reported by 26 companies representing 17% of the total Saudi-listed companies disclosing social and environmental information (Table 5.4). Disclosure related to employee' health and safety is cited under this sub-category. Such as health and safety training, cooperation with third parties for health and safety system auditing, health and safety awareness programs, health campaigns and awards for safety. To give an example of the health and safety disclosure, Eastern Province Cement Company stated that the company's concern with employee health and safety is evidenced by the supply of health and safety equipment and subsequent training for employees:

> *"The company pays great attention to health and safety in the workplace and constantly strives to increase awareness through continual health and safety training for employees. Moreover, the company has provided personal protection equipment and urges employees to use this equipment during their working day"* (Eastern Province Cement Company, P: 5).

Furthermore, Saudi listed companies reported on cooperating with government organizations (e.g. civil defence), by adhering to international standards for measuring the company's health and safety performance and equipping the workplace to make it suitable and supportive for disabled people. For example, below it states that the Savola Group disclosed a total accessibility program for disabled people. This program is concerned with disabled employees' mobility, the company also trained selected employees in the human resources department in dealing with disabled employees:

> *"the company has adapted (total accessibility program) to insure easy mobility and access for disabled employees between the company's building and different facilities. Moreover 85 employees in the human resources department have been trained on dealing with disabled people in the workplace" (Savola Group, p: 27).*

Equal opportunities

The Equal opportunities sub-category relates to employees having equal opportunities in the workplace. This sub-category was disclosed by 10 Saudi-listed companies (Table 5.4). Equal opportunities include company plans, diversity or equal opportunity training. This is demonstrated below in Alahli Takafoul Company's vision:

> *"The company employs more females, who represent 20% of the total number of staff at present. Moreover, the company employs some special needs individuals in line with its vision to provide equal employment opportunities"* (Alahli Takaful Company, P. 11).

Companies also disclosed increasing the number of female employees and the percentage of female employees in the company. This is not only the company's intention but also the Saudi Arabian government's intention, even so, few companies reported items related to employing more women. In this regard Saudi Airlines Catering disclosed that they are attracting more females to work in the company:

> *"The company aims to recruit Saudis; it managed to achieve a continuous increase in the percentage of Saudisation especially in attracting disabled people and female elements..... the Saudi Female has shown significant success in the company kitchen supplies after many years of male occupation in this profession"* (Saudi Airlines Catering, P:17).

Regarding the percentage of female employees in the company, Malath Cooperative Insurance and Reinsurance Company reported that 12% of the company's employees are female:

> *"the female element represents 12% of the total number of employees as the company has provided a suitable and attractive work environment for Saudi female employees"* (Malath Cooperative Insurance and Reinsurance Company, P: 3).

Employees social life

This sub-category relates to a companies' consideration of its employees' social lives; and only 6 companies disclosed information in this category (Table 5.4). The Employee' social life sub-category includes issues such as company surveys on employees' social lives, socialising with staff members and their families, trips and events, establishing a company's own community and providing support for employees' families. For example, the provision of family member education or training, maternity or family leave.

The Human resources category including all sub-categories is argued to be one of the most–noteworthy categories reported by a significant number of Saudi-listed companies. Based on stakeholder theory, employees are essential stakeholders who companies pay attention to when performing as well as reporting. Achieving employee loyalty, lowering employee turnover rates, retaining and attracting good employees are aspects that companies consider. Disclosing information related to employees proves to stakeholders and the local community that the company is socially responsible. Legitimacy theory also dictates that the company is authenticating their legitimacy by reporting on human resource information. This category is the most reported by Saudi-listed companies and the result is consistent with previous studies conducted in developing countries (Alsaeed, 2006; Belal, 2001; Gray et al., 2001; Guthrie and Parker, 1990; Ratanajongkol et al., 2006).

Another reason to explain why human resources is the most reported category by Saudi-listed companies is that a significant number of government enforcement regulations fall under the human resource category and includes information such as the minimum wage, working hours and retirement system. According to institutional theory (coercive isomorphism) companies report human resource information to show the government that they are following the regulations. Another justification for the high percentage of Saudi-listed companies reporting human resource information is peer pressure. Based on institutional theory (mimetic isomorphism) companies report human resource information to gain competitive advantage, consequently, they can retain and attract good employees.

5.3.3 Product and consumer disclosure:

Product and consumer disclosure is one of the least disclosed categories by Saudi listed companies as only 22 companies disclosed information on it. (14% of the companies disclosing social and environmental information (Table 5.1). This category includes product development, product safety, product quality and consumer relations.

Table 5.4: Descriptive statistics of product and consumer disclosure sub-categories disclosed by Saudi listed companies

Sub-category	Number of companies disclosing	Percentage of all disclosing companies
Product and service development	2	1.2 %
Product and service quality and safety	22	14.1 %
Consumer relation	3	1.9 %

Product and service development

Development related to the company's products or services and research related to product development are issues fall under this sub-category. The Abdullah Al Othaim Markets Company disclosed issues which fall under the product development sub-category as shown below in their report, they reveal that the company pays attention to service development:

> *"In line with the company's interests in developing its services and responding to the customers' needs during 2012, the company has continued in its development operations on the identity, mechanism and operational regulation for its 'acquisition card' which was launched in 2011 through building a communication centre and electronic website to benefit the card's customers, activate cards and manage customer communication. This development resulted in a 31.4% increase in the percentage of card customers out of the company's total customers in 2012. In addition to this, the company developed its loyalty program; built its customer database and established an integrated communication centre"* (Abdullah Al Othaim Markets Company, p: 23).

Product and service quality and safety

The Product quality and safety sub category was disclosed by 22 companies (Table 5.1). This sub-category includes items such as the control or auditing of product quality by third parties (i.e. ISO 9000), the disclosure of the extent to which products meet applicable safety standards (i.e. ISO 22000), the improvement of product quality and the firm's product quality awards. Regarding product quality and safety issues, Eastern Province Cement Company disclosed that they pay great attention to the quality of the cement and that they are applying high standards as per the following:

> *"The company pays great attention to the quality of cement products through applying the best standards and using recommended control devises to reach high quality products to satisfy consumers' ambitions. Because of this the company retained its quality trade mark awarded by the Saudi Standard, Metrology and Quality Organization (SASO). And renewed its international quality certificate ISo 2008-9001"* (Eastern Province Cement Company, P: 4)

<u>Consumer relations</u>

Consumer relations concerns building relationships with customers, ensuring customer' satisfaction by carrying out customer' satisfaction surveys and any other consumer care disclosure. This sub-category was reported by only 3 companies which is considered very low.

The previous section provided an analysis of the product and consumer disclosure category which is one of the least reported categories by Saudi-listed companies despite the fact that it contains significant issues. The next section conducts an analysis of the community involvement disclosure.

5.3.4 Community involvement disclosure:

This category is the second most disclosed category. As mentioned previously in section (5.2); 71 companies disclosed items related to community involvement which represents 46% of the companies that are disclosing social and environmental disclosure (Table 5.1). The Community involvement category includes 5 sub-categories; support for education (including training), support for art, culture and sports, support for health and safety and other community activity including donations.

Table 5.5: Descriptive statistics of community involvement disclosure sub-categories disclosed by Saudi listed companies

Sub-category	Number of companies disclosing	Percentage of all disclosing companies
Education and training contribution	45	29 %
Art and culture contribution	15	10 %
Public health and safety contribution	20	13 %
sponsoring sports or entertaining projects	8	5.1 %
Donation and other community involvement	57	37 %

<u>Education and training contribution</u>

Education and training support was reported by 44 Saudi listed companies (Table 5.5). This sub-category is about a companies' contribution to the community in the way of promoting public education, supporting different types of research by investing in research and innovation, supporting educational institutions and sponsoring educational conferences and seminars. Dallah Healthcare holding company is one of the companies that reported contribution to the community as follows:

> *"From the company's social responsibility prospective, the company provides the following: technical support given to the operation management of the National institute for health training. In addition, the company sponsors Saudi medical students and offers financial assistance to support employees conducting medical research. Moreover, the company has sponsored several national and international health awareness events including smoking prevention, blood donations and patient~~s~~ care"* (Dallah Healthcare Holding Company, P: 16, 17).

Further items in this sub-category reported by some of the Saudi listed companies include funding scholarship programs or activities, inspiring young people in education, organizing or contributing in forums or conferences, co-operative and summer training for students, company visits or training of school students, Summer and part-time employment of students and traineeships for students (i.e. internships). Wafrah for Industry and Development Company disclosed that they provide the opportunity for students to train and gain experience in company's factories:

"to participate in supporting the community through donations to charities and schools in addition to welcoming students from different year groups to train and gain different experience in the company's factories" (Wafrah for Industry and Development Company, P:29).

Abdullah Al Othaim Markets Company also disclosed summer employment of students, the development of women's skills and preparing them for the workforce:

"The company employed 183 Saudi Youths during the summer holiday" and "During 2012, The Company trained 770 Saudi females and qualified them for the labour market" (Abdullah Al Othaim Markets Company P: 7)

They also disclosed the social services that their academy provides:

"Alotheim Academy for Free training and development offered training and care for 'Ensan orphanage' children. Moreover, the academy provided training to some special needs individuals which resulted in their employment in different branches of the company. In addition, several social programs were offered to benefit the community. During 2012 the estimated company fund for the academy reached one million SR" (Abdullah Al Othaim Markets Company, p: 16)

Art and culture contribution

This sub-category has been disclosed by 15 companies (Table 5.5). The Art and culture contribution sub-category is about a companies' contribution to art and cultural events and activities. For example, cultural awareness and events (i.e. exhibition, campaign, programs), sponsoring or participating in social events (not for companies' employees), sponsoring art exhibitions or events and participating in any national or international celebration. 15 companies reported items regarding art and cultural contribution including the National Shipping Company of Saudi Arabia who reported that they care to be actively present within the community as well as participating in Saudi national day, as stated below:

"The company seeks to be actively present within the community, during 2012 it contributed to: Sponsoring 'unity of language and communication' programs for children with disabilities

> *charities, supporting charitable societies for the care of orphans (Ensan), Participating in the national festival for Heritage and culture, Participating in the activities of the National Day (82) of the Kingdom of Saudi Arabia"* (National Shipping Company, p. 35).

Public health and safety contribution

Contribution to public health and safety is a sub-category that has been disclosed by 20 companies who revealed 13% of the companies that reported social and environmental information (Table 5.5). This sub-category includes sponsoring or participating in public health projects and awareness programs, establishing or supporting health institutions, providing healthcare facilities, workshops and conferences and donating cash or medical equipment to hospitals.

Sponsoring sports or entertaining projects

Only 8 companies disclosed activities related to the sponsoring sport or entertaining sub-category (table 5.5). It includes promoting and supporting local sports, sponsoring sports events and competitions and sponsoring local sport teams. Fitaihi Holding Group is one of the companies that disclosed items related to sponsoring sports or entertaining projects as follows:

> *"The company sponsored 2 Handball games for the Saudi National team, and prepared a stadium for its employees close to their residence"* (Fitaihi Holding Group, p: 45).

Donation and other community involvement

Donation and other community involvement is one of the most disclosed sub-categories with 57 companies disclosing this sub-category, thus representing around 36% of the disclosing companies (Table 5.5). This sub-category includes contributions to the development of local community facilities (i.e. roads, parks, infrastructure) and support for community activities and events. Additionally, the donation of cash or other (national and international), donation of company products, donations of employees' time, opening companies' facilities to the public, establishing or supporting charities, establishing or supporting community centres, sponsoring any other community activity, sponsoring Islamic awareness lectures and events (i.e. pilgrim), helping in natural disasters aid and CSR awards. In relation to companies' donations and social contributions the Saudi Chemical Company reported their employees' contributions as per the below:

> *"During 2012, the Saudi chemical company supported and sponsored several social and Health events. It also contributed to monthly employee donations to orphan charity organizations (Ensan)"* (Saudi Chemical Company, P: 4)

<u>The National and international donations item.</u>

This item was reported by some of the Saudi listed companies such as Bank Aljazira:

> *"The bank provides (AlJazira social responsibility campaign), through its different aspects and activities in various counties and cities of the kingdom, benefited 2372 young men and women. In addition to the bank's participation in National and Islamic posts for example the response to the orders of His Majesty the king of Saudi Arabia to support the Saudi national campaign to aid brothers in Syria, where the Bank has provided the amount of five hundred thousand riyals"* (Bank Aljazira, P.33).

The Community involvement disclosure category including all sub-categories was highly reported by Saudi-listed companies. This result is expected to be found in a developing Islamic country and traditional culture where group rights are prioritised over those of individuals and generosity is one of the common behaviours. By reporting information related to community involvement, companies can easily be perceived as socially responsible. According to legitimacy theory, companies use this type of information and activities to prove that they are legitimate to operate. Another aspect that could explain the large number of companies reporting community involvement issues is the fact that these activities can be aligned with government plans and strategies. This argument is supported by institutional theory (coercive isomorphism). Regarding donations to authorised charities, the amount donated to charities by companies is deducted from the amount of zakat[29] that the company should pay to the Authority of Zakat and Taxation from their profits. Contributing to the community and disclosing this contribution may positively affect a company's reputation and image which results in a competitive advantage for the company. This argument is supported by institutional theory (mimetic isomorphism).

5.3.5 Economic disclosure:

The Economic disclosure category indicates the companies' contribution to the economy by disclosing their economic performance and job nationalisation. As mentioned previously this category represents 25% of the disclosed categories (Table 5.1).

Table 5.6: Descriptive statistics of economic disclosure sub-categories disclosed by Saudi listed companies

Sub-category	Number of companies disclosing	Percentage of all disclosing companies
Economic performance	8	5.1 %
Job Nationalisation (Saudisation)	87	56 %

<u>Economic performance</u>

Economic performance includes a company's contribution to the national and international economy, job creation, providing entrepreneurial development programs, contributing to food security programs and the recruitment of fresh graduates. The Saudi British Bank disclosed the following in relation to job creation:

> *"From a social responsibility perspective, the bank was a pioneer in providing many social programs and one of the best examples of this is sponsoring a major event which focuses on increasing job opportunities for Saudi women to develop and raise the level of Human Capital in Saudi. The event was inaugurated by His Excellency the Minister of Labour and Head*

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[29] 'Zakat' is Islamic social tax: every Muslim individual and company must pay 2.5% of their wealth towards a charitable cause, such as making donations to the poor and needy (Kamla *et al*., 2006). Companies are also required to pay Zakat to the government as a type of tax.

of Development of the Saudi human resources fund. During the event, a company owner's guide was distributed which explains the steps to be taken by the private sector to help increase the employment of Saudi women" (Saudi British Bank, P: 37).

Job nationalisation (Saudisation).

This sub-category is one of the most disclosed items in the CSED Index of this study since 87 of the reporting companies reported items related to job nationalisation (Saudisation) (Table 5.6), and this number presents around 56% of the reporting companies (Table 5.1). Job nationalisation (Saudisation) is related to employing and developing Saudi employees, providing job opportunities for Saudi employees, replacing foreign employees with Saudi employees, adopting a Saudisation plan and increasing job opportunities for Saudi nationals. Regarding employing and developing Saudi employees in addition to the level of the nationalized jobs, Savola Group reported the following:

> "The company continues employing and developing Saudi employees" and "The majority of managerial and executive possessions are held by Saudi employees" (Savola Group, P25)

They also reported the percentage of Saudi employees in the company as shown below:

> *"There are about 5500 Saudi employees from both genders with an average of 40% of the company's total employees" (Savola Group, P: 25)*

Further items related to Saudisation are: offering training and employment for unemployed people, awards received for Saudisation, cooperating with governmental organizations, agencies which sponsor Saudisation programs and disclosing (Nitaqat programs)30.

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[30] Nitaqat program is introduced by The Ministry of Labor to classify a companies' performance in job nationalisation, four colours to represent four levels of Saudization (red, yellow, green and platinum). The aim of the program is to encourage companies to nationalize their jobs in order to receive governmental benefits (http://www.emol.gov.sa/nitaqat/nitaqat.pdf, 2015)

Economic disclosure is the third most reported category by Saudi-listed companies. This category includes job nationalisation (Saudisation) and it is this sub-category which makes this category the third in disclosure in Saudi Arabia. The Saudi government is firm with regards to Saudisation regulations and enforces companies to follow these regulations by issuing fines for failing to adhere to them or by withdrawing government benefits. As mentioned in Chapter 2, the Ministry of Labour has its own system, the nationalisation employment system (Netaqat) to enforce companies to increase the number of Saudi employees. According to institutional theory (coercive isomorphism) companies chose to disclose this category as a result of pressure from the government. Additionally, legitimacy theory suggests that companies disclosed this category to prove that they are contributing to the economy and that they are serving to solve national and international issues, and are therefore legitimate to operate.

5.3.6 Other social disclosure:

This category includes policies for disclosure and transparency, awards for transparency, implementing sustainability management, declaring accounting standards, anti-corruption policies and procedures, disclosing ethics practices, the percentage of the company's profit spent on CSR, CSR awards received and general CSR information. 31 companies disclosed other social disclosure which represent 19% of the Saudi-listed companies that disclosed social and environment disclosure (Table 5.1). The Saudi Paper Manufacturing Company has disclosed the following regarding bribery and corruption:

> *"The company is managed honestly and fairly and stays away from bribery, corruption and all practices that are not morally and professionally acceptable" (Saudi Paper Manufacturing, P: 2)*

In relation to applying accounting standards and the transparency scheme, the Fitaihi Holding Group disclosed the following:

> *"The company confirms the application of Accounting Standards issued by Saudi organizations for legal accountants" and "We do not accept any illegal practices at work and we are pursuing transparency and integrity in all our businesses" (Fitaihi Holding Group, P: 42).*

General CSR information, disclosing ethics and business practices, the percentage of the company's profit spent on CSR, CSR awards received are also issues under other social disclosure. The Saudi International Petrochemical Company reported the percentage of the profits provided for social responsibility as per the following:

> *"The company allocated 1% of its yearly profits to charities and community service" (Saudi International Petrochemical Company, p: 39).*

5.4 Chapter summery

This chapter provide~~s~~ an analysis of corporate social and environmental disclosure in Saudi Arabia with two objectives in mind. The first objective is to examine the extent of CSED, and the second is to examine the nature of CSED. Applying the results from the content analysis of Saudi-listed companies' annual reports, it can be concluded that 70% of Saudi-listed companies disclosed at least one item related to social and environmental aspects with an average of 7.2 items. In comparison to CSED in Saudi Literature, this result (70%) is considered high, and shows an increase in the level of CSED in Saudi-listed companies,(Al-Janadi et al. (2013) found 14%, Macarulla and Talalweh (2012) stated 16% , Khasharmeh and Desoky (2013) indicated 21.8% and Habbash (2015) found 24%). This result indicates an increase in Saudi-listed companies' awareness of CSED. It indicates their cognizant of the importance of contribution both to society and the community in which they are operating as well as their obligation to report their contributions.

The analysis carried out in this chapter revealed the three most reported categories as Human Resource, community involvement and economic disclosure consecutively (41%, 24% and 20%). These three categories are related to government regulations which could create pressure for companies. In addition, since community involvement comes second place in reporting, the status of Saudi Arabia as a traditional Islamic country affects the nature of CSED. Consequently, these three categories are reported the most by Saudi-listed companies. On the other hand, the environmental disclosure category is not popular in the Saudi-listed companies' annual report (7% of the total disclosure). The majority of the companies that reported this category are industrial companies that have either a direct or indirect effect on the environment. The implementation of this category is considered uneconomical, since applying environmentally friendly operating systems including equipment is said to incur significant expenses. The fact that companies should exhibit a greater awareness of environmental issues when operating is considered a new but growing phenomenon. General, products and consumer disclosure are reported the least consecutively (4% and 3%).

The evidence presented by the detailed analyses of the sub-categories under each CSED category indicates that certain sub categories are disclosed to a higher degree than others. Consistent with the results presented in previous paragraphs, the most frequently disclosed sub categories fall under the categories disclosed the most often. For example, job nationalisation (Saudisation) is the most frequently reported issue; it has been reported by 87 Saudi-listed companies (56% of the reporting companies). As mentioned previously by the Ministry of Labour companies have been encouraged to nationalise jobs by hiring new employees or by replacing foreign employees, thus aiming to decrease unemployment rates. Furthermore, they impose fines on companies that are not complying with regulations, while rewarding companies that are complying with government regulations. According to institutional theory (coercive isomorphism) companies chose to disclose this category as a result of pressure from the government. Additionally, legitimacy theory suggests that companies disclosed this category to prove that they are contributing to the economy and that they are serving to solve national and international issues, and are therefore legitimate to operate.

The two most frequently reported sub-categories in the Human Resource category are Employee training and development (reported by 75 Saudi-listed companies), and employee pay and benefits (reported by 53 Saudi-listed companies). Consistent with stakeholder theory, employees are powerful stakeholders to whom companies pay attention when performing as well as reporting. Achieving employee loyalty, lowering employee turnover rates, retaining and attracting good employees are all aspects that companies consider. Legitimacy theory suggests that companies are confirming their legitimacy by reporting on human resource information. This category is the most frequently reported by Saudi-listed companies and the result is consistent with previous studies conducted in developing countries (Alsaeed, 2006; Belal, 2001; Gray et al., 2001; Guthrie and Parker, 1990; Ratanajongkol et al., 2006). Additionally, a significant number of government enforcement regulations fall under the human resource category and includes aspects such as minimum wage, working hours and the retirement system. According to institutional theory (coercive isomorphism) companies report human resource information to prove their regulatory compliance to the government. Peer pressure might also responsible for the high percentage of Saudi-listed companies reporting human resource information. Furthermore, another institution isomorphism (mimetic isomorphism) places pressure on companies to report human resource information to gain competitive advantage, consequently, they can retain and attract good employees.

In the context of community involvement disclosure, two sub-categories were reported by a significant number of Saudi-listed companies. Donations and other community involvement were reported by 57 companies, whereas education and training contributions were reported by 45 Saudi listed-companies. This result is expected to be found in a developing Islamic country and traditional culture where group rights are prioritised over those of individuals and generosity is one of the common behaviours. According to legitimacy theory, companies use this type of information and activities to prove that they are capable of meeting relative stakeholders and societal expectations and are legitimate to operate. By reporting community involvement information companies are also demonstrating to the government that their activities are aligned with government plans and strategies. This argument is supported by institutional theory (coercive isomorphism). Regarding donations to authorised charities, the amount donated to charities by companies is deducted from the amount of zakat and the income tax that the company should pay to the Authority of Zakat and Taxation from their profits. The disclosure of community contributions has a positive effect on a company's reputation and image and leads to a competitive advantage for the company. This argument is supported by institutional theory (mimetic isomorphism).

Together with the institutional pressure posed by regulations, competitors, international standards and the status of Saudi Arabia as a traditional Islamic country, these results indicate a significant increase in the level of CSED in Saudi Arabia. International pressure is represented by international standards and regulations that companies are required to apply in some cases. This could explain the low mean of the level of CSED (7 information items). Companies are aware of the importance of CSED; but they choose to disclose a low number of items. This could be due to the absence of regulations and codes application which help to shape CSED practice in Saudi Arabia. While this chapter investigated the extent and nature of CSED in Saudi Arabia, the next chapter, Chapter Chapter 6:, will empirically examine the determinants of CSED by Saudi-listed companies.

Chapter 6: Empirical analysis of the determinants of the level of CSED

6.1 Introduction

While Chapter Five focused on the detailed descriptive analysis of the CSED categories reported by Saudi-listed firms and addressed the first research question, *what is the extent and nature of CSED by Saudi-listed companies?*, this chapter projects a descriptive statistical summary of CSED and examined the determinants of CSED, which are used in the CSED models presented in this chapter and the following one. The results that have been obtained by estimating the multivariate regression model are presented and discussed in relation to the literature.

The chapter addresses research question two, which investigates the determinants of CSED by Saudi Arabian-listed companies. This is as follows: RQ2: *what are the determinants of the level of CSED reported by Saudi-listed companies?* There are also two supporting questions: RQ2.a: *Do corporate characteristics of Saudi Arabian-listed companies affect their level of the CSED?* and RQ2.b: *Do the corporate governance mechanisms of Saudi Arabian listed companies affect their level of the CSED?* To achieve the aim of the chapter, the relationship between the firm characteristics, corporate governance mechanism and CSED will be investigated using multivariate regression analysis.

This chapter is organised as follows. Section 6.2 presents the descriptive statistics of CSED as a dependent variable, followed by section 6.3, the descriptive statistics of CSED based on the firm characteristics. Section 6.4 gives the descriptive statistics of CSED based on corporate governance mechanism, while section 6.5 shows the data preparation process that is followed before applying the statistical test. Section 6.6 illustrates both the multivariate regression and the OLS assumptions, followed by section 6.7, which reports the findings of the multivariate regression analysis of the empirical model. Finally, Section 6.8 presents the summary and conclusion of the chapter.

6.2 Descriptive statistics of CSED

As discussed in Chapter Four, CSED is the dependent variable that is measured by using the CSED index. This is done by allocating 1 for each disclosed item in the annual report and 0 otherwise. The level of disclosure per company and per category is measured by the total number of items disclosed. Table 6.1 represents the descriptive statistics for CSED and the firm characteristics. The table shows that the mean of CSED is 7.61, indicating that each company reported a minimum of 0 items and maximum of 66 on average. Although more than 70% of the sampled companies disclosed social and environmental disclosure, the mean of the CSED index is relatively lower than the average (37 items). This result indicates that companies have intended to disclose social and environmental activities, even if this has been at a basic level. This intention could be because of one of the following reasons, which are supported by legitimacy stakeholder and institutional theory.

Companies disclose, even if it is just the minimum, in an attempt to appear socially responsible in order to gain or maintain legitimacy. This argument has been supported by legitimacy theory (Lindblom, 1993). Furthermore, they are satisfying stakeholders by assessing their needs and responding to them, as suggested by stakeholder theory (Gray et al., 1996c), and they are responding to governmental rules and regulation, or wish to gain a competitive over competitors, as discussed by institutional theory (Campbell, 2007). However, the mean of the items disclosed by the Saudi-listed companies is considered to be low and this could be because of the voluntary nature of the social and environmental disclosure. Therefore, companies will disclose because of one of the reasons mentioned previously in this section, but it is a low level of disclosure to a certain extent.

This low level could be because of the voluntary nature of CSED, as there is nothing that enforces or guides companies to disclose social and environmental information. The result of this analysis is consistent with the previous studies conducted in Saudi Arabia. Alsaeed (2006) found the mean of the disclosure index of Saudi companies was also lower than the average, and argues that the low mean of disclosure could be a result of the inadequacy of the government's enforcing of the regulation about engaging in corporate social and environmental activities and disclosure, as well as the cost of performing social and environmental activities. The average of the disclosure in this study is around 21%, which is slightly higher than in previous studies, such as those by Macarulla and Talalweh (2012) (16%) conducted in 2008 and Al-Janadi et al. (2013) (14.61%) conducted in 2006 and 2007. It is also slightly lower than Habbash (2015) which is (24%).

Table 6.1: Descriptive statistics of CSED and firm characteristics

	N	Mean	Minimum	Maximum	Std. Deviation	Kurtosis	Skewness
CSED	157	7.61	0.00	66.00	9.30	10.41	2.56
Lg Firm Size	123	21.37	17.55	26.53	1.91	.053	.66
Firm age	157	21.9	1	60	15.20	-.56	.55
Return on assets	157	5.46	-31.49	46.38	9.00	4.57	0.79
Leverage	157	0.40	0.00	1.10	0.27	-0.88	0.38

This table presents the descriptive analysis of CSED and the explanatory variables (firm characteristics)

In order to proceed with the descriptive analysis, the sampled firms will be grouped in the following section. The grouping of these companies is based on their level of disclosure and will assist in showing clearer results.

6.2.1 Companies grouping based on CSED level

Three groups have been formed. The first consists of the companies that did not report any social or environmental information. The second has the companies reporting between one and nine items of social and environmental information, and the third contains companies that reported ten or more items of social and environmental information. The forming of the groups is based on the quartile statistical method, which was also used by (Curwin and Slater, 2007). The results show that the second group, which reported between one and nine items, has the highest percentage of companies, which is 48.7%, whereas the companies that reported ten or more items have a lower percentage of 29.5%. While the companies that did not report any social and environmental information represented around 21.8% of the total. The above statistics are reported in Table 6.2 and Figure 6.1 below.

Table 6.2: Grouping companies according to the level of reporting

	Number of firms	Percentage %
Not reporting	34	21.79
1-9	76	48.72
10+	46	29.49
Total		100.0%

The results in the table above indicate that 78% of the Saudi listed companies are reporting CSED information in their annual reports with the majority reporting 1-9 items.

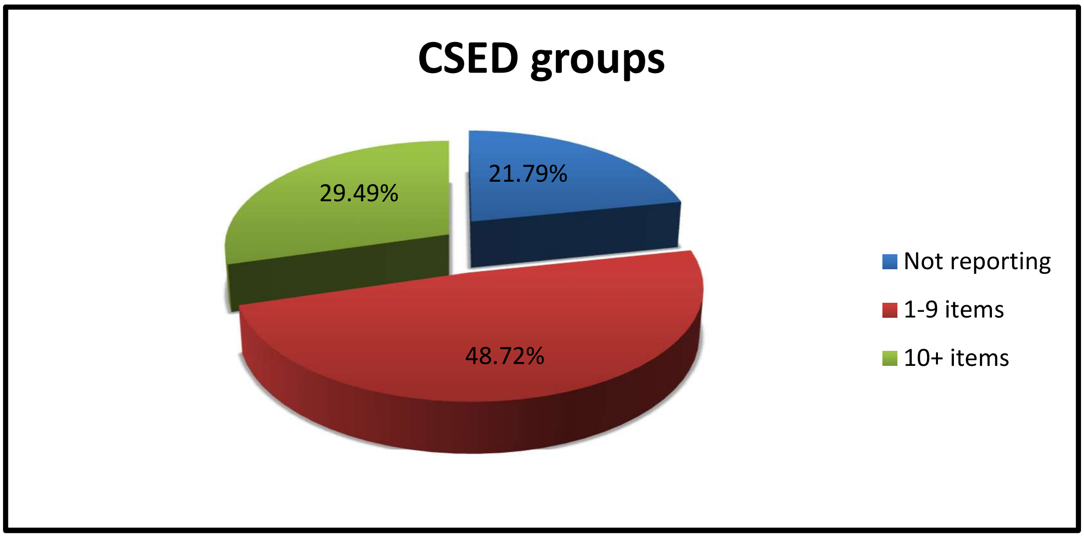

Figure 6.1: Grouping companies according to the level of CSED

6.3 Descriptive statistics of CSED based on firm characteristics independent variables:

This section presents the descriptive statistics of the variables that will be used in the regression analysis, which are the firm characteristics as independent variables. Furthermore, it presents the analysis of the level of CSED based on the firm characteristics and seeks to investigate potential factors among the sampled firms that are correlated with CSED. Moreover, it seeks to answer the supporting research question A: *Do the corporate characteristics of Saudi-listed companies affect their level of CSED*? In order to investigate this supporting research question, this chapter will investigate the correlation between CSED and the firm characteristics in order to shed light on the possible impact that some of the corporate characteristics may have on the extent to which companies report on social and environmental information.

6.3.1 Firm size

Firm size is one of the most studied firm characteristics related to CSED. In this study, it is measured by using the company's total assets. In order to get better results, the natural logarithm of the total assets has been used as a measurement of firm size (Alsaeed, 2006). The descriptive statistics in Table 6.1 shows that the mean of firm size is 21.37 with a minimum of 17.55 and a maximum of 26.53 and the standard deviation is 1.91. This sub-section presents the descriptive statistical analysis of firm size, in addition to analysing CSED based on firm size to test hypothesis, *H1*.

The first step taken to test this hypothesis is the analysis of variances (ANOVA), which has been conducted to compare the firm size of firms that have been grouped, based on their level of CSED (Table 6.3)

Table 6.3: Firm size, firm age, return on assets and leverage mean for firms grouped, based on their level of CSED

	CSED groups					
	Not reporting		**1-9 items**		**10+ items**	
	Mean	Coefficient of Variation (CV)	Mean	Coefficient of Variation (CV)	Mean	Coefficient of Variation (CV)
Lg Firm size	20.46[a]	0.08	21.13[a]	0.08	22.46[b]	0.09
Firm Age	20.46	0.68	17.38	0.82	26.86	0.63
Return on assets	1.79[a,b]	3.11	5.35[a]	1.75	8.44[b]	1.13
Leverage	0.35[a]	0.74	0.38[a]	0.71	0.46[b]	0.56

Notes: a denotes a significantly different firm size than b (*P* <0.001, one-way ANOVA).
a denotes a significantly different return on assets than b while a, b is not significantly different to a or b (*P* <0.05, one-way ANOVA).
a denotes a significantly different leverage than b (*P* <0.001, one-way ANOVA).

The results in Table 6.3 show the firm size of companies that report more than 10 social and environmental items is significantly larger than non-reporting companies or those reporting less than 10 items (p = 0.001, Table 6.3). Therefore, it could be argued that larger companies are reporting more social and environmental information than smaller firms. This result provides sufficient evidence to support *H1,* Spearman's correlation coefficient is another test that has been employed to investigate the correlation between firm size and CSED (as shown in Table 6.4). The results show that there is a statistically significant correlation relationship at the (0.01) level between firm size, and social and environmental disclosure.

Table 6.4: Correlations between firm size, firm age, profitability (ROA) and leverage and social and environmental disclosure.

	Correlation coefficient	P-value
Lg Firm size	.642***	<0.001
Firm Age	.738***	<0.001
Return on assets (ROA)	.691***	<0.001
Leverage	.357***	<0.001

*** Denotes a significant correlation of P < 0.01 (Spearman's correlation) between the level of CSED and the explanatory variables in the table.

The overall positive correlation, between firm size and CSED has been supported by the findings of the previous studies presented under stakeholder theory, legitimacy theory and institutional theory, as discussed in Chapter 3, section 3.7.1. These argue that larger firms are expected to report more social and environmental information to satisfy their stakeholder groups, as larger firms' stakeholders have greater expectations than smaller firms. Larger firms also tend to report more social and environmental information to maintain their legitimacy and good reputation (Alsaeed, 2006), and they pay attention to concerns such as governmental attention, as well as media and public groups (Watts and Zimmerman, 1986). Disclosing social and environmental information in order to gain a competitive advantage is another reason that motivates larger companies, as they generally lead smaller firms, as institutional theory suggests. The results correspond with the literature review, which proves that firm size is one of the characteristics that influence firms' social and environmental activities and disclosure (Alsaeed, 2006; Bayoud et al., 2012; Gray et al., 2001; Hackston and Milne, 1996; Huang and Kung, 2010; Menassa, 2010; Wallace and Naser, 1996).

6.3.2 Firm age

Previous studies have revealed that firm age is a significant determinant of the level of CSED (for example, see: (Bayoud et al., 2012; Camfferman and Cooke, 2002). A number of the studies have used company age as one of the most important factors that can affect the level of disclosure, in particular CSED (Liu and Anbumozhi, 2009; Rettab et al., 2009). This is based on the argument that the legitimacy of old firms has been built up during the years of operation, which has been addressed by stakeholder, legitimacy and institutional theory. *H2* will examine and investigate whether older firms disclose more social and environmental information. The natural logarithm of firm age is the measure of firm age.

The average of the companies' age, as shown in Table 6.1, is *21* years with a minimum value of 1 year and a maximum of 60 years. Moreover, ANOVA has been conducted to compare firm size between the firms that have been grouped, based on the level of reporting (as shown in Table 6.3). The results show no association between firm age and the level of disclosure. Using Spearman's Rank correlation coefficient (as shown in Table 6.4), the results indicate there is a statistically significant correlation relationship between firm age and social and environmental disclosure (p≤0-01). Therefore, this provides evidence that supports *H2.* The results of previous studies have been inconclusive, and the results of this analysis are consistent with previous studies (for example see: Habbash, 2015; Muttakin and Khan, 2014; Rettab et al., 2009).

6.3.3 Firm profitability (ROA)

The third firm characteristic to be investigated in this study that relates to the level of CSED is firm profitability. The management of more profitable companies tend to disclose more social and environmental information in order to convince shareholders of their ability to maximise shareholders' value, so as to increase their compensation (Alsaeed, 2006; Hackston and Milne, 1996; Muttakin and Khan, 2014) and present the company's achievements to other stakeholders. The association that exists between firm profitability, which is measured by the return on assets, and the level of CSED will be investigated by testing *H3.*

Table 6.1 presents the mean of the return on assets, which is 5.46, the minimum value, -31.49, and the maximum, 46.38. ANOVA technique has been conducted to compare the firm profitability (ROA) between firms that have been grouped, based on their level of CSED (Table 6.3). The return on assets for companies reporting more than 10 social and environmental items is significantly larger than firms reporting less than 10 items (p <0.05, Table 6.3). Therefore, it could be argued that firms with higher profits are reporting more social and environmental information than those with lower profits. To provide more evidence, Spearman's correlation coefficient has been analysed (as shown in Table 6.4). The results show that there is a statistically significant correlation relationship at the (0.01) level between firm profitability and social and environmental disclosure.

This result supports *H3* and has been explained by stakeholder theory, legitimacy theory and agency theory, as firms with high profitability have a greater intention to present their achievement to stakeholders and the public, as well as promote a positive impression that maintains their legitimacy and good reputation (Branco and Rodrigues, 2008; Reverte, 2009). Furthermore, managers of companies with a high profitability tend to disclose more information, including social and environmental to present their achievement, which reflects on their reputation in contrast to companies with lower profitability (Gallego-A lvarez and Quina-Custodio, 2016). The result of this analysis is consistent with (Belkaoui and Karpik, 1989; Gray et al., 2001; Hackston and Milne, 1996; Kansal et al., 2014; Muttakin and Khan, 2014), as the results of their studies showed a positive correlation between firm profitability and CSED.

6.3.4 Firm leverage

Firm leverage is another factor related to CSED that has been investigated by previous studies. Firms with either higher leverage or debt tend to disclose more social and environmental information than those with lower leverage. This could be to satisfy stakeholders, including creditors, investors and shareholders and provide the information they require (Alsaeed, 2006). *H4* will be tested to investigate the suggested positive association between firm leverage, measured by total liabilities to total assets ratio, and CSED.

Before investigating the association between firm leverage and CSED, descriptive statistics are presented, as shown in Table 6.1. The mean of leverage is 0.40 and the standard deviation 0.27 with a minimum value of 0.00 and maximum of 1.10. To investigate the association between firm leverage and the level of CSED, ANOVA has been conducted to compare firm leverage between firms that have been grouped, based on their level of reporting (Table 6.3). The leverage for firms reporting more than 10 social and environmental items is significantly larger than non-reporting or firms that report less than 10 items ($p < 0.01$, Table 6.3). Spearman's correlation coefficient (as shown in Table 6.4) is another technique used to investigate the association between firm leverage and CSED, and the results show there is a statistically significant correlation relationship at the (0.01) level between firm leverage and social and environmental disclosure.

Therefore, it could be argued that companies with higher leverage are reporting more social and environmental information than those with lower leverage. This result provides sufficient evidence to support *H4,* this hypothesis has been supported by all the stakeholders, legitimacy, institutional and agency theories, as companies aim to prove they are legitimacy to operate by providing more social and environmental information, although they have high leverage. Furthermore, managers tend to report more social and environmental information to lower agency costs that have increased as a result of the high level of leverage (Alsaeed, 2006; Gallego-A lvarez and Quina-Custodio, 2016). In addition, satisfying stakeholders, including creditors, is a company concern, especially for those with a higher level of leverage. Therefore, companies disclose more social and environmental information, as explained by stakeholder theory.

This result, which shows a positive association between firm leverage and CSED, is consistent with Esa and Ghazali (2012) Malone et al. (1993), Branco and Rodrigues (2008), Said et al. (2009), Habbash (2015), who found that a firm's leverage positively affects the level of disclosure.

6.4 Descriptive statistics of the CSED based on corporate governance mechanisms

This section presents a descriptive analysis of corporate governance factors, such as independent variables, in addition to investigating the association between these factors, ownership structure, board size, board independency, audit firm size and CEO duality, as well as the level of CSED. Each of the corporate governance factors will be addressed in the sub-section.

6.4.1 Firm ownership

The level of CSED is more likely to vary amongst different ownership structures. As highlighted in the literature, ownership structure is one of the significant factors that affects the level of CSED (Albassam, 2014; Konijn et al., 2011). This study has focused on types of ownership in governance structures, including managerial, governmental and foreign ownership and examined them with regards to their effect on the level of CSED.

Government ownership

The corporate level of social and environmental disclosure, which is based on institutional theory, is affected by different aspects, such as governmental laws, rules and regulations (Li and Zhang, 2010). As a result, government ownership demands more accountability and transparency, which means there is more reporting, including social and environmental reporting. *H5* is to be tested in this sub-section to investigate the relationship between governmental ownership and CSED.

Table 6.5: Descriptive statistics of corporate governance mechanisms

	N	Mean	Minimum	Maximum	Std. Deviation	Kurtosis	Skewness
Managers' Ownership (%)	157	6.96	0.00	60.30	11.86	7.09	2.59
Government Ownership (%)	157	8.33	0.00	83.60	17.30	5.96	2.51
Foreign Investors' Ownership (%)	157	5.26	0.00	67.00	12.76	5.70	2.50
Board Size	157	8.36	5.00	12.00	1.52	-0.46	0.01
Independent	157	47.60	0.00	100.00	19.22	.508	1.17

This table presents the descriptive analysis of explanatory variables (corporate governance mechanisms).

The mean of the governmental ownership factor is 8.33, with a minimum of 0.00 and maximum of 83.60 (as shown in table 6.5). The analysis of variances (one-way ANOVA) is one of the tests that have been conducted to examine the relationship between governmental ownership and CSED. The results, as shown in (6.6), indicate that the value of F-statistics is 4.177 (df =2) and is statistically significant at the 0.05 level in the one-way ANOVA test, which specifies there is a statistically significant correlation between the companies' level of social and environmental disclosure and governmental ownership. The mean of firms' ownership in companies that report more than 10 items is statistically different from firms that do not report.

Table 6.6: Managerial ownership, public ownership, foreign ownership, governmental ownership, board size and board independence mean for firm groups, based on level of CSED

	CSED groups					
	Non-reporting		Reporting 1-9 items		Reporting 10≤ items	
	Mean	Coefficient of Variation	Mean	Coefficient of Variation	Mean	Coefficient of Variation
Managers' Ownership	5.20	2.20	5.39	2.26	7.60	1.56
Public Ownership	62.01	0.34	62.11	0.39	25.93	0.38
Foreign Investors Ownership	7.11[a]	1.82	5.43[a,b]	2.28	1.98[b]	3.97
Government Ownership	6.69[a,b]	2.14	5.47[a]	2.23	14.76[b]	1.72
Board Size	8	1	8	2	9	1
Independent	49.99	23.82	47.09	17.88	46.37	17.12

Notes: a denotes a significantly different foreign ownership than b while a, b are not significantly different to a or b (*P* <0.1, one-way ANOVA).
a denotes a significantly different government ownership than b while a, b are not significantly different to a or b (*P* <0.05, one-way ANOVA).

Spearman's correlation coefficient (as shown in Table 6.7) has been conducted to investigate the type of correlation there is between governmental ownership and CSED. The results show there is a statistically significant positive correlation (P<0.01). This result shows that companies are more likely to disclose more items when the government owns shares in Saudi-listed companies. This finding is in line with Hannifa and Cooke (2005).

Table 6.7: Correlations between ownership structure and the level of social and environmental disclosure

	Correlation coefficient	P-value
Managerial ownership	0.418***	0.001
Governmental ownership	0.467***	0.001
Foreign companies ownership	0.358***	0.001

*** Correlation is significant at the (0.001) level (Spearman's correlation).

Managerial ownership

As discussed in Chapter Three, the existing literature suggests there are no conclusive results regarding the association between managerial ownership and CSED. Studies suggest that companies that have a high concentration of managerial ownership tend to disclose less social and environmental information than companies with lower managerial ownership. This is because managers pay less attention to public accountability and other stakeholders (Chau and Gray, 2010; Eng and Mak, 2003; Villalonga and Amit, 2006). In contrast, studies which argue that the external pressure that companies nowadays face from stakeholders to maintain their legitimacy should not be ignored (Belal and Owen, 2007; Islam and Deegan, 2008). This argument has been explained by the stakeholder, legitimacy and institutional theories, as managers need to respond to stakeholder demand and report social and environmental information. This is in addition to the governmental and global standards and regulations of accounting and reporting that managers should pay attention to. Therefore, *H6* is to be tested to investigate the expected positive correlation between managerial ownership and CSED.

Before examining the association between managerial ownership and CSED, a descriptive analysis of managerial ownership is presented, as shown in Table 6.5. The mean of the managerial ownership is 6.96, with a minimum of 0, a maximum of 60.30 and a standard deviation of 11.86.

To examine and test the hypothesis, a one-way ANOVA) was conducted and the results are presented, as shown in Table 6.6. The value of F-statistics is 0.770 (df =2) and is statistically insignificant in the one-way ANOVA test, which indicates that managerial ownership and CSED are not correlated.

Following another technique, which examined the correlation between managerial ownership and CSED, Spearman's correlation coefficient was used (as shown in

Table 6.7). The results show there is a statistically significant correlation between managerial ownership and social and environmental disclosure.

The results of the two tests are not consistent; therefore, regression analysis will be used (in section 6.6) before an overall conclusion is reached.

Foreign ownership

According to Khan et al., (2013), companies with foreign ownership are expected to have a higher level of corporate social and environmental disclosure. Based on legitimacy theory, companies prioritise to prove their legitimacy to foreign investors and sustain the investment. Disclosing more social and environmental information is one way that companies use to prove their legitimacy. Another reason is that companies with foreign ownership are inspired by investors that enhance CSED more (Schipper, 1981). As a result, *H7* suggests a positive association between foreign ownership and CSED.

The descriptive statistics of foreign ownership is presented in Table 6.5 as the following: the mean is 5.26 with a minimum of 0 and maximum of 67.00. Furthermore, a one-way ANOVA has been conducted to examine the relationship between foreign ownership and CSED. As shown in Table 6.6, the value of F-statistics is 2.712 (df =2) and statistically significant at the 0.01 level in the one-way ANOVA test, which indicates there are statistically significant variations between a company's level of social and environmental disclosure, based on foreign ownership. The mean of the foreign ownership in companies that report more than 10 items is statistically different from firms that are not reporting (Table 6.6). To investigate the type of correlation between foreign ownership and CSED, Spearman's correlation coefficient (as shown in Table 6.7) has been conducted. The results show that there is a statistically significant positive correlation ($P<0.01$). This result is consistent with Khan et al. (2012).

6.4.2 Board size and the proportion of independent members of the board of directors

The board of directors and the existence of independent directors on the board are vital corporate governance factors, as they control the managers' actions toward the strategies and plans of the company (Said et al., 2009). In addition, these factors place pressure on the management to successfully operate and pay attention to stakeholders' needs, based on stakeholder theory, as they need to be socially responsible and disclose in order to satisfy stakeholders. Therefore, a positive association between the size of the board of directors and CSED is suggested, as well as a positive association between an increase in the members of an independent board of directors and CSED. Two hypotheses *H8* and *H9* will be tested in this sub-section to investigate the associations between board size, independent board members and CSED.

The descriptive analysis in Table 6.5 presents the mean of the board of directors' size, which is 8.36, with a minimum of 5.00 and a maximum of 12.00. The descriptive analysis of the independent members of the board of directors, as shown in Table 6.5, shows that the mean of the proportion of the independent members of the board of directors is 47.60, with a minimum of 0.00 and maximum of 100.00.

A one-way ANOVA has been conducted to test the above hypotheses. This examines the relationship between the size of the board of directors, the proportion of independent members of the board and CSED. The results indicate there is no association between board size and CSED, as the value of the F-statistics is .895 (df =2) and is statistically insignificant in the one-way ANOVA test. The results for the proportion of independent members of the board show there is no association between the proportion of independent members of the board and CSED, as the value of F-statistics is .401 (df =2) and it is statistically insignificant in the one-way ANOVA test. Moreover, when comparing the means, as shown in Table 6.6, it can be argued that there are no differences between the size of the board based on the reporting groups. This result also applies to the proportion of independent members of the board of directors.

Spearman's correlation coefficient (as shown in Table 6.8) has been conducted to investigate the type of correlation that exists between board size, the proportion of independent members of the board and CSED. It can be noted from the results that there is a statistically positive correlation between board size, board independence and the level of corporate social environmental disclosure (which is significant at 0.01 level).

Table 6.8: Correlations between board size, board independence and social and environmental disclosure

	Correlation coefficient	P-value
Lg Board size	.440***	.001
Independent members	.429***	.001

***Correlation is significant at the (0.01) level.

Therefore, this result indicates that companies with a larger board size are more likely to disclose more social and environmental disclosure, as well as board independence. Said et al 2009 also found the board of directors, the size, and board independence are all significant factors in explaining the variation and level of CSD.

6.4.3 CEO duality

CEO duality occurs when the CEO is the Chairman. It is argued that CEO duality reduces the companies' accountability and transparency, as joining the role of the CEO and the chairman affects the control system, presents a conflict of interest and, thus, reduces the level of accountability (Michelon and Parbonetti, 2014). Stakeholder theory and legitimacy theory both explain the negative association that exists between CEO duality and CSED, due to CEO duality reducing companies' accountability and transparency of companies. Therefore, their ability to meet stakeholders' needs is reduced, which means they lose their legitimacy. As a result, a negative association is assumed between CEO duality and the level of CSED to be tested in *H10.*

Table 6.9 shows that the majority CEO of Saudi-listed companies have a single role (146 companies). This could be the resulted of corporate governance regulations in SCGC (article 12d)[31].

[31] Article 12d in the SCGC states that conjoining the position of the Chairman of the Board of Directors with any other executive position in the company, such as the CEO, managing director or general manager, is prohibited.

Table 6.9: Level of CSED in firms with CEO duality and non-duality

	N	Mean	Stdv.
CEO duality	11	6.91	7.854
Non-duality	146	7.66	9.416

This table presents the descriptive statistics of the explanatory factor (CEO). It presents the number of companies where the CEO has a dual role and companies where the CEO has a single role.

CEO duality is a dummy variable with 1 if the CEO has a dual role and 0 otherwise. One-way ANOVA has been conducted in this case to test the above hypothesis. No relation has been found between CEO duality and CSED. The value of F-statistics is .83 (df =1) and is statistically insignificant in the one-way ANOVA test. This result is consistent with Ho and Wong (2001); Cheng and Courtenay (2006); Khan et al. 2012; Habbash 2015, who found no association between CEO duality and voluntary disclosure.

6.4.4 Audit firm size

Audit firms are divided into two groups: large (big 4) and small (not big 4). Large audit firms are more concerned about their reputation and are, therefore, more willing to associate with firms that disclose more information in their published financial report (Alsaeed, 2006; Depoers, 2000). Large audit firms (big 4) take their legitimacy into account and, therefore, request more information reporting, including CSED. This argument is explained by legitimacy theory. The figure below (figure 6.2) shows that the majority of the Saudi-listed companies use one of the big 4 auditing companies to audit their reports (75.80%). *H11* will be tested in order to investigate the association between audit firm size and CSED.

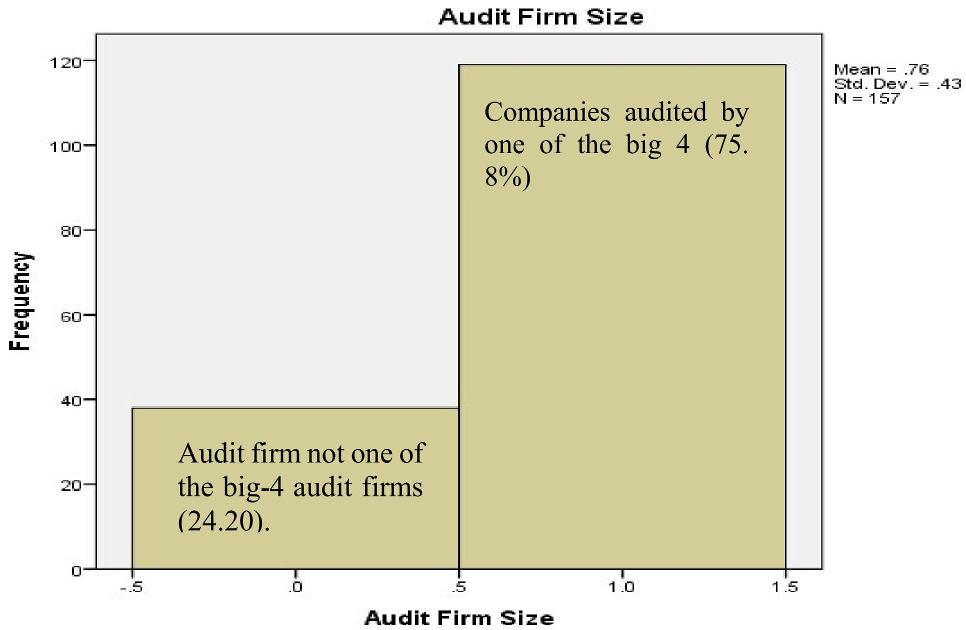

Figure 6.2: The descriptive analysis of Audit Firm Size.

To test the above hypothesis, a T-test was conducted to examine whether there was a significant difference or not. Audit firm size was treated as a dummy variable 1 if the audit firm was one of the big 4 and 0 otherwise. The results are presented in Table 6.10

Table 6.10: Level of CSED in large and small audit firms

	N	Percentage	Mean	Stdv.
Big 4	119	75.80	8.30	10.078
Not big 4	38	24.20	5.45	5.834

This table presents the descriptive statistics of the explanatory factor (audit firm size), whether the audit firm is one of the big four auditing companies or not.

The results showed there is a statistically significant difference between the companies employing one of the big four audit firms and other companies that employ audit firms not from the big four. The value of the F-statistics is 2.77 (df =1) and is statistically insignificant. This result is in line with Al Bassam (2014) who found a positive relationship between the size of the audit firm and voluntary disclosure.

After presenting the descriptive statistics of CSED and explanatory variables (firm characteristics and corporate governance mechanisms) and testing the correlation between CSED and the variable, the next section will present the multiple regression analysis.

6.5 Multiple linear regression

As discussed in Chapter Four, the statistical method or technique that is used to investigate the CSED determinant in this study is multiple linear regression, a classical linear regression that is consistent with previous studies (Alsaeed, 2006; Hackston and Milne, 1996). The next sub-section will present the process of multiple linear regressions.

6.5.1 Data preparation and OLS assumptions

This section presents the stages, prior to regression, that the data went through to achieve the best results. The first stage is to prepare the data for analysis. The data was collected in the following two ways: the CSED and corporate governance information was obtained manually from the companies' reports and the Tadawul website[32] and the Bloomberg database (Giannarakis et al., 2014) was used to collect financial data, such as total assets, ROA and leverage. An index was constructed to collect the CSED information for each company. The collected data from different sources was then gathered and defined in SPSS 21 to start the required analysis. The second stage in the data preparation was screening for missing data, which was carried out before performing the regression. Some of the data collected through the Bloomberg database was found to be missing, which resulted in a reduction in the sample size. The missing data, such as the debt ratio, ROA and leverage, was collected manually from the companies' financial reports, with the aim of reducing the missing data as much as possible to get the best possible results.

To develop the "best" model, so that all the estimated coefficients have the "right" signs (Gujarati, 2003, p.516), several assumptions were tested in relation to normality, multicollinearity, homoscedasticity, autocorrelation and linearity. The following sub-sections cover the test for each of the assumptions.

[32] Tadawul website: the official website of the Saudi Stock Exchange.

Assessing normality and linearity

Normality can be defined as the extent to which the distribution of the sample data corresponds to a normal distribution (Hair et al., 1998). Normality can be examined by statistical or graphical methods. Skewness and kurtosis describe the normality of the data that is used in this study to assess for normality, as well as the histogram graphs. A perfect normality in the data distribution occurs when the kurtosis is equal to zero (Pallant, 2005), which is rarely achieved in the context of the social sciences (West et al., 1995). However, a skewness value of between -1.0 and +1.0 is not considered to be too extreme (Huck, 2004). It is argued that variables with absolute values of the skew index that are bigger than 3 can be described as "extremely" skewed, and the absolute values of the kurtosis index between about 8.0 to over 20.0 are indicated as being "extreme" kurtosis (West et al., 1995, Kline, 2005). In this study, the normality assumption of continued variable has been tested by examining the distribution of the variables, whether they are normal or not (Cooke, 1998; Black, 2001). This was done by using skewness, kurtosis, probability-probability (P-P) and histograms (Ntim et al., 2012). Following the past studies that have been carried out, such as (Ntim and Soobaroyen 2013, Haniffa and Hudaib, 2006; Ramly, 2012), CSED, firm size, firm age and board size are normalised by taking the natural logarithm (LogCSRD, LogFS, LogFA, LogBS). Transforming the variables moderates the problem of non-normality and the linearity. Thus, two of the OLS assumptions are fulfilled in addition to checking the homogeneity and outliers (Haniffa and Hudaib, 2006; Ntim et al., 2012; Ramly, 2012).

The other variables showed mixed results. ROA, leverage and the percentage of independent members of the board of directors were distributed fairly normally, while ownership variables suffered from the slightly non-normal distribution. However, Brooks (2008, p.164) recommends that "*for sample sizes that are sufficiently large, violation of the normality assumption is virtually inconsequential*". Therefore, this study depends on a large sample (of 157 companies) that can alleviate the negative impact of the existing non-normality of some of the variables. The descriptive statistics of the variables are shown in Table 6.11 below.

Table 6.11: Table Descriptive statistics of the variables (normality test)

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness[33]	Kurtosis[b34]
Log CSRD	123	.00	1.82	.80	.43	-.29	-.52
Log FS	157	7.62	11.52	9.29	.84	.67	.03
Log FA	157	-.30	1.78	1.18	.43	-.66	-.44
Log BS	157	.70	1.08	.915	.08	-.46	-.06
ROA	157	-31.49	46.38	5.42	8.97	.80	4.61
Leverage	157	.00	1.10	.40	.267	.38	-.88
Man Own	157	.00	60.30	5.96	11.86	2.59	7.09
For In Own	157	.00	67.00	5.26	12.76	2.50	5.70
Gov Own	157	.00	83.60	8.33	17.296	2.51	5.96
Ind	157	.00	100.00	47.60	19.22	.51	1.16
CEO Dual	157	0	1	.07	.26		
Audit FS	157	0	1	.76	.43		

Notes: The variables of the corporate social and environmental disclosure are defined, as follows: the dependent variable is the natural logarithm of the corporate social and environmental disclosure (lg*CSED*), the natural logarithm of firm size (lgFS), return on assets (ROA), leverage, managers ownership (ManOwn), foreign investment ownership (ForInOwn), government ownership (GovOwn), the natural logarithm of the board size (lgBS), the percentage of independence members of the board of directors (Ind), CEO duality (CEO Dual), audit firm size (AuditFS). Chapter Four presents the detailed definitions of the variables employed.

Assessing Autocorrelation

The existence of autocorrelation is another problem that could affect the results of the OLS regression. The Durbin-Watson (DW) is utilised to test the independent errors (autocorrelation) at a level of significance of 0.05 (Bayoud et al., 2012, Kajananthan, 2012, Ntim et al., 2012). The result of the Durbin-Watson d value can range from 0 - 4. If the d value of the Durbin-Watson equals 2, this leads to the independent error. For accuracy, the Durbin-Watson d value that is greater than 3 or less than 1 is a reason for concern (Field, 2009) and, according to Gujarati (2003), if the Durbin-Watson value is equal or close to 2, then there is no autocorrelation problem. The Durbin-Watson d value for this data is 1.916, as shown in Table 6.11, which is not greater than 3 or less than 1. Therefore, there does not seem to be an autocorrelation problem in our data sample.

Assessing multicollinearity

Below is the correlation between all the variables to determine the possible multicollinearity among the variables. Multicollinearity occurs if the correlation

[33] Skewness is used to test the variables' normality. (It should be between 1 and -1 to be normally distributed; if it is more than 3, then it is extremely skewed.)

[34] Kurtosis is used to test the variables' normality. (It should be less than 8; if it is between 8 and 20, then there is extreme kurtosis.)

coefficient between two continuous independent variables is large. Moreover, it becomes serious if it exceeds 0.800 (Bryman and Cramer, 2001; Guajarati, 2003). The correlation matrix for the dependent and independent variables in the corporate social and environmental disclosure models in Table 6.12 illustrates the Pearson correlation coefficient (parametric) and Spearman correlation coefficients (non-parametric), following Ntim et al. (2012) and Ntim and Soobaroyen (2013). Both the correlation coefficients (parametric and non-parametric) appear to give moderately similar results, which enhances evidence that there is no major problem of non-normality amongst the variables in the model (Ntim and Soobaroyen, 2013). The results show a significant positive correlation between six independent variables, which are firm size, firm age, ROA, leverage, governmental ownership and audit firm size, as shown in Table 6.12 with CSED at 0.64, 0.74, 0.69, 0.36, 0.47 and 0.21 respectively. However, the matrix indicates there is no multicollinearity problem, as the correlation confidant between the independent variables is fairly low. The highest correlation coefficient is between the firm age and ROA at (.607). This correlation coefficient is not considered high enough to cause serious multicollinearity. In addition to the correlation matrix, both the variance inflation factor (VIF) and tolerance have been done to assess multicollinearity. According to Kennedy (1992) and Lardaro (1993), multicollinearity level is accepted if the VIF is less than 3, while it considers there to be a serious problem if the VIF exceeds 10. The results of the collinearity statistics, as presented in Table 6.13, have proved there is no multicollinearity problem, since VIF in the multivariate regression falls between the minimum (1.04) and maximum (2.044), which is less than 3. Regarding the tolerance statistics test, it can be seen that the variables' value is between a minimum of (.49) and maximum of (.96). As a result, all the multicollinearity tests indicate that there is no serious problem in the multicollinearity interpreting the results of the OLS regressions.

Table 6.12: Correlation matrix

	Log CSRD	Log FS	Log FA	Log BS	ROA	Leverage	Man Own	For Invest Own	Gov Own	Ind	CEO Dual	Audit FS
Log CSRD	1	.642***	.738***	.418***	.691***	.357***	.418***	.358***	.467***	.288***	-.039	.208**
Log FS	.642***	1	.492***	.282***	.516***	.396***	.317***	.290***	.252***	.333***	-.005	.074
Log FA	.629***	.492***	1	.274***	.607***	.204**	.353***	.198**	.365***	.290***	.015	.057
Log BS	.346***	.282***	.226***	1	.329***	.144*	.171**	.189**	.147*	.040	-.026	.000
ROA	.598***	.516***	.444***	.286***	1	.015	.333***	.306***	.369***	.279***	-.002	.072
Leverage	.378***	.396***	.220***	.158**	.056	1	.141**	.072	.082	.062	.002	.144
Man Own	.326***	.317***	.241***	.177**	.260***	.161**	1	.071	.157*	.126	-.069	.046
For In Own	.375***	.290***	.200**	.175**	.372***	.154	.049	1	.279***	.076	-.060	.151
Gov Own	.423***	.252***	.249***	.143	.287***	.040	.083	.231***	1	.149**	-.142	.114
Ind	.278***	.333***	.272***	.055	.263***	.084	.080	.054	.159**	1	.095	-.046
CEO Dual	-.038	-.005	.062	-.036	-.026	.022	-.038	-.052	-.120	.128	1	-.020
Audit FS	.205**	.074	-.004	-.005	.005	.144	.011	.145	.022	-.042	-.020	1

Notes: The bottom left half of the table contains Pearson's parametric correlation coefficients, whereas the upper right half of the table shows Spearman's non-parametric correlation coefficients. ***, ** and * indicate significance at 1%, 5% and 10% respectively. Variables are defined as follows: corporate social and environmental disclosure (lg *CSED*), firm size (lg FS), return on assets (ROA), leverage, managers ownership (Man Own), foreign investment ownership (For In Own), government ownership (Gov Own), board of directors size (lg BS), independency (Ind), CEO duality (CEO Dual), Audit firm size (Audit FS). Chapter Four presents detailed definitions of the variables employed.

Table 6.13: The OLS multiple regression analysis

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-1.24	.42		-2.93	.00		
Log FS	.09	.04	.18	2.3	.02**	.49	2.04
Log FA	.29	.07	.29	4.26	.00***	.66	1.51
ROA	.01	.00	.24	3.34	.00***	.56	1.77
Leverage	.21	.10	.13	2.10	.04**	.74	1.35
Man Own	.00	.00	.06	1.05	.30	.84	1.19
Gov Own	.00	.00	.15	2.47	.01**	.82	1.23
For in Own	.00	.00	.04	.59	.56	.76	1.31
Log BS	.45	.32	.09	1.43	.16	.85	1.17
Ind	.00	.00	.06	1.03	.31	.85	1.17
CEO Dual	-.00	.09	-.00	-.04	.97	.93	1.07
Audit FS	.12	.06	.13	2.26	.03**	.96	1.04
Adjusted R^2	0.63						
Std Error of the Estimate	0.26						
Regression-F-value	20.04						
Regression-Significance	0.000						
Durbin-Watson statistics	1.92[a]						
Brusch-test	.10[b]						

Note: The variables of the corporate social and environmental disclosure are defined as follows: the dependent variable is the natural logarithm of the corporate social and environmental disclosure (lgCSED), the natural logarithm of firm size (lgFS), the natural logarithm of firm age (lgFA) the return on assets (ROA), leverage, managers ownership (ManOwn), foreign investment ownership (ForInOwn), government ownership (GovOwn), the natural logarithm of the Board of directors size (lgBS), the percentage of independence members of the board of directors (Ind), CEO duality (CEODual), audit firm size (AuditFS). Chapter Four presents detailed definitions of the variables employed.

a. The Durbin-Watson test is taken to check for autocorrelation (this should be 2 or close to 2). b. If the test is significant, the null hypothesis is accepted that there is heteroscedasticity.

Assessing heteroscedasticity

Residuals analysis is applied to the results in order to check for a heteroscedasticity problem. Noruésis (1995, p. 447) defined residuals as 'what are left over after the model is fit and they are also the difference between the observed value of the dependent variable and the value predicted by the regression line'. After calculating the squared residuals, which are regressed with the independent variables, the result of the Breusch–Pagan test (as shown in Table 6.13) indicates it is an insignificant test for heteroscedasticity, which means rejecting the null hypothesis that there is a heteroscedasticity.

In this section, several tests have been carried out to assess and check the validity of the OLS assumptions in order to ensure that OLS regression is the appropriate technique to examine the determinant of corporate social and environmental disclosure in Saudi Arabia. The tests include skewness, kurtosis, probability-probability (P-P) and histograms to assess normality, Variance Inflation Factor (VIF), tolerance statistics to assess multicollinearity, Durbin-Watson to assess autocorrelation and Breusch-Pagan to assess heteroscedasticity. Some variables have been transformed in order to fulfil the normality and linearity assumptions. The next section will discuss the results of the multivariate regression by investigating the determinants of corporate social and environmental disclosure.

6.5.2 Multiple regression analysis

The previous sub-section showed that the data meets the OLS regression assumptions (i.e., it does not have any problems, such as normality, linearity, heteroscedasticity, Multicollinearity and autocorrelation). Hence, OLS regression will be used to examine the determinants of corporate social and environmental disclosure (CSED) in Saudi Arabia, as was discussed in Chapter Four. By running this regression, the second research question will be addressed. This aims to investigate the determinants of the level of CSED (RQ2: What are the determinants of the level of CSED reported by Saudi-listed companies), including the two sub-questions which are:

RQ2.a: Do the firm characteristics of Saudi-listed companies affect the level of CSED?

RQ2.b: Does the corporate governance mechanism of Saudi-listed companies affect the level of CSED?

Corporate social and environmental disclosure is the dependent variable that is conducted through a constructed index, including six main categories (environment, human resources, product and consumer, community involvement, economic and general disclosure) in addition to the sub-categories.

The results of the OLS multiple regressions are presented in Table 6.13. The *f* value is significantly different from zero = 20.04, indicating that the model can explain the variation in the mean of CSED. In addition, the adjusted R^2, as presented in Table 6.13, suggests that the model explains 63% of the total variation of CSED amongst the Saudi-listed companies. Based on the results of the regression, six hypotheses are accepted (H1, H2, H3, H4, H6 and H11), while five hypotheses were rejected (H5, H7, H8, H9 and H10).

Firm Characteristics

The first four hypotheses investigate the effect of firm characteristics on the level of CSED in Saudi Arabia. These are as follows:

Firm Size

Starting with firm characteristics, the first hypothesis is that there is a positive association between firm size and CSED. The results in Table 6.13 show a significant positive correlation between firm size and the level of CSED at 5% level (*$\beta 1=0.18$, t-statistics =2.3),* which led to acceptance of the first hypothesises. This result is consistent with legitimacy theory, as larger firms disclose more social and environmental information in order to maintain their legitimacy and good reputation (Alsaeed, 2006), as well as stakeholder theory, where the stakeholder groups of larger firms have greater expectations that need to be satisfied and create greater pressure than the stakeholders of smaller firms do (Roberts 1992, Meek et al., 1995). Institutional theory also proposes that government, media and public groups give more attention to disclosure by larger firms than they do to disclosure by smaller firms (Watts and Zimmerman, 1986). Saudi labour law and regulations stated that companies are required to participate in the Saudisation programme that the government implemented in 2011 (Department of Labour and Employment, Ministry of Labour). Larger firms are expected to participate more in this programme as they have more employees, as a result recruiting more Saudi employees or replacing foreign employees in occupied jobs. Moreover, larger companies are more likely to apply for governmental tenders than smaller firms in order to do this, and apply for government projects, as they are requested to submit a Saudisation certificate to show their legibility.

As a result, the level of corporate social responsibility of large firms is expected to be higher than the level of smaller firms, thus the level of disclosing social and environmental activities or information is higher than smaller firms. Another explanation for the positive correlation between firm size and CSED might be the gaining of a competitive advantage over smaller firms, which is what institutional theory suggests. The results of previous studies in developed and developing countries, in relation to firm size, are consistent with this study's results. (For example, Ho and Taylor, 2007; Adams et al., 1998; Reverte, 2009; Hackston and Milne, 1996; Gray et al., 2001; Gray et al., 2003; Menassa, 2010; Branco and Rodrigues 2008; Muttakin and Khan, 2014; Hussainey et al., 2011).

Alsaeed (2006) and Habbash (2015) also found that firm size is significant in Saudi Arabia and explained the variation in the level of CSED. While Said et al. (2009), Kansal et al (2014), Abdul Hamid (200) and Gallego-Alvarez and Quina-Custodio (2016) found that firm size is not a significant factor that affects the level of CSED.

Firm age

The result from the regression also indicates that firm age has a significant positive effect on the level of CSED in Saudi Arabia at 1% level of confidence ($\beta 2=0.29$, t-statistics=4.26), as shown in Table 6.13, *which directs to an acceptance of the second hypothesis*. This result could be due to older firms having more experience in dealing with stakeholders' needs, media and government rules and regulation than newly established firms. Moreover, stakeholders of old firms have more expectations and older firms disclose more social and environmental information to satisfy their stakeholders' needs, which is what stakeholder theory suggests. Old firms have built their legitimacy through their operation years and they are keen to maintain this legitimacy and not lose it. Therefore, old firms are expected to disclose more social and environmental information, as suggested by legitimacy theory, while newly established firms are busy setting up their business. The leadership concept, as proposed by institutional theory, is another reason that could explain the correlation between firm age and the level of CSED. Old firms usually take the lead in business and, as a result, disclose more social and environmental information to gain a competitive advantage and, thus, lead the newly established companies. The result of this study is significant and the positive correlation is consistent with Muttakin and Khan (2014), Skouloudis et al (2013), Delaney and Huselid (1996), Rettab et al. (2009), in addition to Habbash (2015) in Saudi Arabia. However, neither Alsaeed (2006) in Saudi Arabia and Menassa (2010) in the Lebanon have found no association between firm age and the level of CSED.

Profitability (ROA)

The third hypothesis is that there is a positive association between firm profitability (ROA) and CSED. The results in Table 6.13 shows there is a significant positive correlation between ROA and the level of CSED at 1% level of confidence (*β3=0.24, t-statistics=3.34*), which leads to acceptance of the third hypothesises, that proposes there is a positive association between ROA and CSED. This positive association has been suggested by stakeholder theory and legitimacy theory as the managers of firms with large profits tend to disclose more social and environmental information to persuade stakeholders of their ability to maximise the shareholder value and the companies' achievements, which leads to an increase in compensation (Alsaeed, 2006). Moreover, by doing CSED, the managers of high profit-making companies will promote a positive image to maintain their legitimacy and good image (Branco and Roderigues, 2008; Reverte, 2009). They tend to show their achievement in detail since it will reflect on their reputation, image and salary as agency theory proposes. In contrast, when the profitability is low managers tend to hide some information, and disclose less to avoid negative effects on the companies' market value (Gallego-A lvarez and Quina-Custodio, 2016).

In Saudi Arabia, as mentioned previously, the Labour Ministry has imposed rules on companies to ensure they assign Saudi employees and provide training and workshops for them. More profitable firms are expected to comply more with these regulations, as well as apply for government tenders that require a Saudisation certificate, which demonstrates the company's commitment to the government's laws and regulations. More profitable firms can also engage more in social and environmental activities, including community involvement, and can offer more benefits for their employees and, thus, disclose more social and environmental information. Performing additional and voluntary social and environmental activities also costs additional charges and, as a result, Saudi-listed companies with higher profits are more likely to perform more social and environmental activities and disclose more information about these activities than less profitable firms. Previous studies, such as Gray et al. (2001), Hackston and Milne (1996), Patten (1991), Belkaoui and Karpik (1989), Kansal et al. (2014), Muttakin and Khan (2014) and Skouloudis et al. (2013) are consistent with this study's results, which found that ROA is a significant factor in explaining the variations that are found in the level of CSED.

However, Reverte 2009, Said et al. (2009), Gallego-Alvarez and Quina-custodio (2016), Hussainey et al. (2011) found an insignificant correlation between ROA and the level of CSED in Saudi Arabia. Habbash (2015) and Alsaeed (2006) found that firm profitability is an insignificant factor in explaining the variation in the level of disclosure.

Leverage

The results in Table 6.13 show there is a significant positive correlation between firm leverage and the level of CSED at a significant level of 5% (*β4=0.13, t-statistics=2.10*). This indicates that Saudi-listed companies with higher leverage or debt tend to disclose more social and environmental information than firms with lower leverage. This positive correlation could be due to companies with a higher level of leverage that are more concerned about satisfying stakeholders, including creditors, investors and shareholders, and so provide the information they require (Alsaeed, 2006). This argument has been supported by both the stakeholder and legitimacy theories as companies aim to prove to stakeholders and especially creditors they are legitimate by providing more social and environmental information. As explained by stakeholder theory, creditors require a higher level of disclosure from firms with high leverage to protect their funds (Jensen, 1986). Based on agency theory, agency costs increase with a the increase of the level of leverage (Elzahar and Hussainey, 2012). As a result, managers of companies with high level of leverage disclose more information including social and environmental information to lower agency cost (Alsaeed, 2006; Gallego-A lvarez and Quina-Custodio, 2016). When the debt level increases, a conflict of interest between shareholder and creditors results, so and to prevent this from happening creditors seek more information to reduce information asymmetry and to make sure that the company will be able to pay the debt in the future (Gallego-A lvarez and Quina-Custodio, 2016)

This result, which shows a positive association between firm leverage and CSED, is in line with Esa and Ghazali (2012), Malone et al.(1993), Branco and Rodrigues (2008), Said et al. (2009), Naser et al. (2002), Naser et al. (2006) and Esa and Malone et al. (1993), who found that a firm's leverage positively affects the level of disclosure. In addition, Habbash (2015) found the same results in the Saudi Arabian context, while Alsaeed (2006) stated that there is no correlation between leverage and the level of disclosure in Saudi Arabia. Similarly, Giannarakis and Konteos (2014), Reverte (2009), Siregar and Bachtair (2012), Gallego-

Alvarez and Quina-Custodio (2016), Muttakin and Khan (2014) and Hussainey et al. (2011) found that leverage is an insignificant factor when it comes to explaining the variation of the level of CSED.

<u>Corporate governance</u>

The next set of hypotheses test the effect of corporate governance on the level of corporate social and environmental disclosure by testing the following variables:

Ownership structure

<u>Managerial ownership</u>

The results of the regression, as shown in Table 6.13, show that managerial ownership is an insignificant factor in explaining the variation in the level of CSED. This led to a rejection of the hypothesis proposed in Chapter Three, that there is a negative association between managerial ownership and the level of CSED. Previous studies had inconclusive results with some finding a negative association between managerial ownership and CSED, as a result of managers paying less attention to public accountability and other voluntary activities, such as corporate social and environmental disclosure (Eng and Mak, 2003; Villalonga and Amit, 2006; Chau and Gray, 2010; Kuo and Hung, 2012). In contrast, other studies argue that the external pressure that companies face nowadays from stakeholders to maintain their legitimacy should not be ignored (Belal and Owen, 2007; Islam and Deegan, 2008). This argument has been explained by the stakeholder, legitimacy and institutional theories, as managers need to respond to stakeholder demand and report social and environmental information, as well as meet governmental and global standards and pay attention to accounting and reporting regulations. Although the results of the regression indicate that managerial ownership is insignificant, the coefficient is positive (*$\beta 5=0.06$, t-statistics=1.05*). The result of this study is not consistent with previous studies, such as Li et al. (2013), Ruland, Tung, and George (1990), Ghazali and Weetman, (2006), Eng and Mak, (2003) , Samaha and Dahawy (2011), which found that managerial ownership is a significant determinant of CSED. This could be because reporting social and environmental information in Saudi Arabia a new issue, therefore, managers might pay more attention to the required priorities that help to maximise shareholders value, than they do to social and environmental activities.

Government ownership

The sixth hypothesis tests the effect of governmental ownership on the level of CSED. The results of the regression analysis, as shown in Table 6.13 (*β6=0.15, t-statists=2.47*), indicate there is a significant and positive association between governmental ownership and the level of CSED at the level of 5%, which led to the hypothesis being accepted. The results illustrate the significance of the governmental ownership mechanism in explaining the variation in the level of CSED and improving the disclosure level (Conyon and He, 2011). Based on institutional theory, corporate social and environmental disclosure is affected by governmental laws, rules and regulations (Li and Zhang, 2010). Therefore, government ownership will demand more accountability and transparency, which means more reporting, including social and environmental reporting. This result confirms the argument that companies with government ownership are socially responsible, as governments promote transparency and disclosure practices, including reproducing CSED (Said et al., 2009: Ntim et al., 2013; Al-Janadi et al, 2013; Habbash, 2015).

Agency theory suggests that, in the case of governmental ownership, a balance will be reached between the goals of principals (governmental owners) and agents (managers). The company will generate profits whilst continuing to be socially responsible. The fact that the government establishes regulations to ensure companies remain socially responsible is another reason for the positive association between governmental ownership and CSED level. Companies that are owned by the government have a responsibility to set an example to other companies by being socially responsible and this will be evidenced in reporting (Habbash, 2015). Governmental ownership encourages good governance, accountability, transparency, corporate social responsibility and disclosure (Al-Janadi et al., 2013; Eng and Mak, 2003; Habbash, 2015; Ntim et al., 2013; Said et al., 2009). This result has been supported by existing empirical studies by Said et al. (2009), Khan (2010) and Das et al. (2015), Eng and Mak (2003), Haniffa and Cooke (2005), and Conyon and He (2011).

Foreign ownership

The results of the regression analysis showed the association between foreign ownership and the level of CSED is insignificant. However, the correlation coefficient indicated there is a positive association (*β7=0.04, t-statists=0.59*). As discussed in Chapter Three, companies with foreign ownership are expected to disclose more social and environmental information (Khan et al., 2012). This argument is supported by legitimacy theory as companies give more attention to proving their legitimacy to foreign investors to sustain investment, as well as disclosing more social and environmental information to prove their legitimacy. Another reason is that companies with foreign ownership are inspired by investors who enhance more CSED (Schipper, 1981). However, in this study, foreign ownership failed to explain the variation in the level of CSED by Saudi-listed companies, as disclosing social and environmental information is still a voluntary activity. Therefore, the seventh hypothesis, which states that there is a positive association between foreign ownership and the level of CSED, is rejected.

Size of the Board of Directors

The size of the board of directors has also been tested in this regression analysis and the results in Table 6.13 show there is a positive but insignificant association between the board's size and the extent of CSED in Saudi-listed companies (*β8=0.09, t-statists=1.43*). In Saudi Arabia, corporate governance is a contemporary issue, as the application of the corporate governance mechanism is still new. The Saudi Corporate Governance Code (SCGC)[35] does, however, recommend a size of between three and eleven directors, according to the needs and size of the company (Albassam 2014). In addition, CSED is a voluntary activity that the board of directors might not give much attention or priority to. Since there is no evidence of a significant association between the size of the board of directors and the extent of CSED in the results of the multiple regressions, the eighth hypothesis, which tests the impact of board of director's size on the extent of CSED, is rejected.

The proportion of independent members of the board of directors

The ninth hypothesis is to test if the proportion of independent members of the board of directors has a positive association with the extent of CSED in the Saudi context. The results of the regression analysis, as shown in Table 6.13, indicate that there is an insignificant

[35] The Saudi corporate governance code (SCGC) was issued by the Capital Market Authority (CMA) in 2006 (AL-Abbas, 2009).

association between the proportion of independent members of the board and the extent of CSED (*β9=0.06, t-statists=1.03*). This finding led to a rejection of the hypothesis. As mentioned in the previous section, the practice of disclosing social and environmental information is considered to be voluntary and is similar to the size of the board of directors, as the introduction of independent board members was one of the corporate governance mechanisms introduced in developing countries in general (Mahadeo *et al.,* 2012) and Saudi Arabia in particular[36]. Jiraporn *et al*. (2009) argue that independent directors may not have enough time to participate actively on the board and this could influence CSED. Another reason is that the Saudi corporate environment is still influenced by political connections and informal social relations to an extent, and this could affect the selection of the directors, which has led to boards in Saudi-listed companies having questionable independence (Al-Twaijry *et al.,* 2002; Haniffa and Hudaib, 2007; Hussainey and Al-Nodel, 2008; Alshehri and Solomon, 2012, Albassam 2014). These previous aspects could be the reasons why no evidence has been found of a positive association between the proportion of independent members of the board and the extent of CSED in Saudi-listed companies. The finding is not consistent with the legitimacy and stakeholders theories, as they suggest a positive association between the proportion of independent members of the board and the extent of CSED, as independent directors are better at representing stakeholders' interests (Clarke, 1998) and pay more attention to the legitimacy of their company. This finding is in line with previous studies that have found board independence insignificant, such as Ho and Wong (2001) Ghazali and Weetman (2006) Hussainey et al. (2011) and Habbash (2015) in the Saudi context. However, this result is not consistent with Eng and Mak (2003), Barako et al. (2006), Said et al. (2009), Khan (2010), Hannifa and Cooke (2002) Harjoto and Jo (2011) Khan et al. (2012), who found the proportion of independent members of the board of directors significant.

Chief Executive Officer (CEO) role duality

The association between the CEO duality and the extent of CSED has been tested through the regression analysis, as shown in Table 6.13. The finding indicates there is a negative

[36] Article 12c in the SCGC proposed that the number of independent members of the Board of Directors should not be less than two or one-third of all the members, whichever is greater.

insignificant association with the t-statistics of -0.04, which means that separating the CEO and Chairman could not explain the variation in the level of disclosure. Thus, the tenth hypothesis, which proposes a negative association between CEO duality and the level of CSED, is rejected. The CMA issued Article 12d[37] in the SCGC in Saudi Arabia to enhance the role of the board in monitoring the company's performance. This result is consistent with Giannarakis et al. (2014) and Bukair and Abdul-Rahman (2015), Ho and Wong (2001), Elzahar and Hussainey (2012), Said et al. (2009) Michelon and Parbonetti (2012), Cheng and Courtenay (2006), and Khan et al. (2012), who also found that CEO duality is an insignificant factor when investigating the determinant of the level of CSED. Habbash (2015) has found the same result in Saudi Arabia. On the other hand, Roberts et al (2005), Gul and Leung (2014), Huafang and Jianguo (2007), Lakhal, (2005), Laksmana, (2008), Forker, (1992), Haniffa and Cooke, (2002), Eng and Mak, (2003) and Hussainey et al. (2011) found that CEO duality is a significant factor in investigating the determinants of CSED.

Audit firm size

The results of the regression analysis, as shown in Table 6:13, indicate that the size of the audit firm has a significant positive effect on the level of CSED at 5% level ($\beta 11= 0.13$, t-statistics = 2.26). This result has led to acceptance of this model's eleventh and last hypothesis, which examines the positive association between audit firm size and the level of CSED. Although audit firm has a significant role in improving the level of CSED in the SCGC, this code does not address the role of audit firms with regards to disclosure. This result is consistent with agency theory which is concerned with audit quality since providing more reliable and credible information in the reports reduces agency costs and big audit firms enhance disclosure quality (Al-Janadi et al., 2013; Eng and Mak, 2003; Haniffa and Cooke, 2002; Jensen and Meckling, 1976). As a result, small audit firms are expected to require less information to be disclosed. Previous studies also suggest that large audit firms (big four firms)[38] seem to be more independent than small ones and

[37] Article 12d in the SCGC states that conjoining the position of the Chairman of the Board of Directors with any other executive position in the company, such as the Chief Executive Officer (CEO) managing director or general manager, is prohibited.

[38] The big four audit firms are PricewaterhouseCoopers, Deloitte and Touche, Ernst and Young and KPMG.

are more able to limit the opportunistic behaviour of managers due to their experience (Haniffa and Cooke, 2002; Eng and Mak, 2003). In addition, the big four firms may require the disclosure of more information to protect and maintain their legitimacy and reputation, this argument is consistent with the concept of legitimacy theory. On the other hand, smaller audit firms are more concerned about losing their clients and as a result they give serious consideration to the customers' needs (Alsaeed, 2006; Malone et al., 1993).

Previous studies DeAngelo (1981), Depoers (2000), Raffournier (1995), Ntim *et al*. (2012a) and Schiehll *et al*. (2013) are inconsistent with the findings of this study, that there is a significant positive association between audit firm size and the CSED. In contrast, Wallace *et al*. (1994), Hossain *et al*. (1995) and Macarulla and Talalweh (2012) found there was no significant relationship between audit firm size and disclosure. In Saudi Arabia, Alsaeed (2006) found that audit firm size was an insignificant factor in the investigation of voluntary corporate disclosure.

Table 6.14: A summary of all the hypotheses and findings for the determinants of corporate social and the environmental disclosure model

Explanatory variable	Hypothesis No.	Expected sign	Finding sign	Finding significance	Hypothesis status
Firm Characteristics					
Firm Size	1	+	+	Significant (5%)	Accepted
Firm Age	2	+	+	Significant (1%)	Accepted
Profitability (ROA)	3	+	+	Significant (1%)	Accepted
Leverage	4	+	+	Significant (5%)	Accepted
Corporate Governance Factors					
Managers Ownership	5	-		Insignificant	Rejected
Government Ownership	6	+	+	Significant (5%)	Accepted
Foreign Ownership	7	+		Insignificant	Rejected
Board Size	8	+		Insignificant	Rejected
Independent members of the board of directors	9	+		Insignificant	Rejected
CEO Duality	10	-		Insignificant	Rejected
Audit firm Size	11	+	+	Significant (5%)	Accepted

Note: In the hypothesis of the corporate social and environmental disclosure model, the dependent variable is corporate social and environmental disclosure (CSED). It is presented in Chapter Three.

After analysing the results of the regression model and discussing the findings, the table below summarises the outcomes of the hypothesis for the determinant of the level of CSED. Six hypotheses were found to be consistent with the hypotheses expressed in Chapter Three – firm size, firm age, ROA, leverage, government ownership and audit firm size. However, managers' ownership, foreign investors' ownership, the size of the board of directors and the percentage of independent members of the board of directors were rejected.

6.6 Chapter summary and conclusion

This chapter presents the descriptive statistics of corporate social and environmental disclosure (CSED) and of the CSED determinants. The model aims to investigate the determinants of CSED in Saudi Arabia by using a sample of 157 Saudi-listed companies. The objectives of this chapter are: firstly, to present a descriptive analysis of CSED and the determinants, which are the firm characteristics and corporate governance mechanism. Secondly, the chapter focused on investigating the determinants of the level of CSED. These are divided into two sets of determinants (firm characteristics and corporate governance mechanism using) and involve multiple regression analysis. The first part of this chapter presents the descriptive statistical analysis by using different statistical techniques that use ANOVA, Spearman's correlation coefficient and by comparing the means of the variables. The results indicate that more that 70% of Saudi-listed companies are reporting social and environmental information with a mean that is (7.61) lower than the average. This result shows that the Saudi-listed companies have the intention of disclosing social and environmental information, although this is considered to be of a basic level. Regarding the preliminary tests that were conducted to investigate the association between CSED and the determinants (firm characteristics and corporate governance mechanism), the results show there is a positive and significant association between all of the variables (FS, FA, ROA, Lev, ManOwn, Govown, ForOwn, BS, Ind, CEODual, AuditFS)[39] and CSED, except for CEO duality, which is negative insignificant. In the second part of the chapter, the assumptions of the OLS regression have been checked in

[39] FS: firm size, FA: firm age, ROA: return on assets, Lev: leverage, ManOwn: managerial ownership, Govown: governmental ownership, ForOwn: foreign ownership, BS: board size, Ind: the proportion of independent members on the board of directors, CEODual: CEO role duality, AuditFS: audit firm size.

order to guarantee that OLS is a suitable test to run the study model. After ensuring that OLS is the appropriate test, a multiple regression analysis has been run to address the second research question, which investigates the factors affecting the level of CSED in Saudi Arabia. The results are in line with previous studies, indicating that larger firms are more likely to disclose more social and environmental information. This result is supported by the legitimacy, stakeholder and institutional theories. In addition, older firms have a higher level of CSED than newly established ones, as suggested by both the legitimacy and institutional theories. Profitability and leverage are also significant factors that affect the level of CSED, in line with stakeholder and legitimacy theories, which argue that variables, ROA and leverage affect the level of CSED.

Corporate governance mechanisms as variables are also included in the model that investigates their effect on the level of CSED. The regression analysis showed that only two variables – governmental ownership and audit firm size – are significant in explaining the variation that exists in the extent of CSED. Institutional theory suggests there is a positive association between governmental ownership and the extent of CSED, while there is an argument that companies audited by one of the big four companies disclose more social and environmental information. On the other hand, managerial and foreign ownership, the size of the board of directors, the proportion of independent members of the board and CEO duality are insignificant variables when determinants of the CSED are examined. Six hypotheses (firm size, firm age, ROA, leverage, governmental ownership and audit firm size) are accepted from the results of the regression analysis. However, five hypotheses have been rejected (managerial and foreign ownership, board size, the proportion of independent directors on the board and CEO duality). The model in this chapter was to investigate the effect of the firm characteristics and corporate governance mechanism on CSED in general by using a total of six categories.

In the next chapter, each category of the corporate social and environmental disclosure index will be investigated separately, as well as how they relate to the determinants (firm characteristics and corporate governance mechanism). Negative binomial regression is used to investigate whether firm characteristics and corporate governance mechanism affect each CSED category separately.

Chapter 7: Empirical analysis of the determinants of the CSED categories

7.1 Introduction

In the previous chapter, the results obtained from the examination of 157 Saudi listed companies showed that all firm characteristics in this study (firm size, firm age, ROA and leverage), in addition to some corporate governance mechanisms (governmental ownership and firm size), have significant effects on the level of social and environmental disclosure.

This chapter will go further and examine whether firm characteristics and corporate governance factors have a potential influence on the level of corporate social and environmental disclosure categories. As shown in Chapters Five and Six, the sampled companies differed in the types of categories (included in the corporate social and environmental disclosure index) that they report. For example, the companies reported more in categories such as human resources, community and economics than they did in the environment and product and consumers categories.

The aim of this chapter is to identify the rationale for this variation in the levels of reporting by Saudi listed companies by examining the determinants of individual CSED categories. This chapter will address the third research question which is *RQ3: What are the determinants of the level of CSED in terms of categories that are reported by Saudi listed companies?* This research question will be addressed through two sub questions; *RQ3.a: Do corporate characteristics of the Saudi listed companies have an impact on the level of each category of the CSED?* and *RQ3.b: Do corporate governance mechanisms of the Saudi listed companies have an impact on the level of each category of the CSED?*

The chapter will be organised as follows. Section 7.2 presents the descriptive statistical analysis of the CSED categories as dependent variables[40]. Section 7.3 presents the statistical method

[40] The descriptive statistical analyses of the independent variables, firm characteristics and corporate governance mechanisms, are discussed in Chapter Six.

applied (negative binomial regression) followed by 7.4 which specifies the determinants of environmental disclosure. Section 7.5 deals with the determinants of human resources and section 7.6 with the determinants of the products and consumers disclosure. Section 7.7 covers the determinants of community involvement disclosure while 7.8 looks at the determinants of economic disclosure followed by the determinants of general disclosure in 7.9. Finally, 7.10 presents the chapter summary and conclusion.

7.2 Descriptive statistics of CSED categories

This section presents a descriptive analysis of the CSED categories used in the regression analysis. The dependent variables are environmental disclosure, human resources disclosure, products and consumers disclosure, community involvement disclosure, economics disclosure and general disclosure. As discussed in Chapter Four, the CSED index consists of these six main categories by which to measure the quantity of the social and environmental information disclosed by Saudi listed companies in their annual reports. The disclosure in each category is measured by allocating 1 for each disclosed item in the annual report and 0 otherwise. The amount of disclosure per company and per category is measured by the total number of items disclosed.

Table 7.1 below presents the descriptive statistical analysis of the categories forming the CSED index. It can be seen from the means of the categories in Table 7.1 that the human resources category has the highest mean (3.2) with a minimum of 0 items disclosed and a maximum of 35 items. The human resource category represents any information regarding employee training and development, the pay and benefits system, employee morale, health and safety, employment policies, equal opportunities and social life balance. As discussed in Chapter Five, human resources information is the category most disclosed by the Saudi listed companies (41% of the total disclosure) as 87% of those that report social and environmental activities report human resource items (Table 7.2). Community involvement disclosure is the second highest category. This category contains information about supporting education and training, art, culture, public health and safety and the sponsorship of sporting or recreational activities. 24% of the total social and environmental disclosure in the index refers to community involvement disclosure with around 44% of the sample companies disclosing community involvement information in their reports (Table 5.2). The mean of this category, community involvement, is 1.88 with a minimum of 0 items and 13 items as the maximum disclosed (Table 7.1). This result is as expected in a traditional Islamic country where public interest is prioritised over individual interests.

Table 7.1: Statistical discriptive analysis of CSED categories

CSED categories	Mean	Min	Max	Variance	Std. Deviation	Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis
ED	0.55	0	16	3.16	1.78	5.64	0.19	40.29	0.39
HRD	3.2	0	35	21.24	4.61	3.00	0.19	14.60	0.39
PCD	0.24	0	6	0.60	0.77	4.73	0.19	26.70	0.39
CID	1.88	0	13	7.79	2.79	1.74	0.19	2.71	0.39
ECD	1.59	0	9	3.89	1.97	1.45	0.19	1.96	0.39
GD	0.19	0	3	0.27	0.52	3.25	0.19	11.87	0.39

Corporate social and environmental disclosure (CSED) categories in this table are Environmental Disclosure (ED), Human Resources Disclosure (HRD), Products and Consumers Disclosure (PCD), Community Involvements disclosure (CID), Economic Disclosure (ECD) and General Disclosure.

The third category, economic information, includes information about a company's economic performance, market presence and job nationalisation (Saudisation). Accounting for 20% of the CSED index represents economic information as being disclosed by 53% of the listed companies (Table 5.2) with a 1.59 mean, 0 minimum items and a maximum of 9 maximum (Table 7.1). The remaining three categories discussed below are environmental disclosure, products and consumer disclosure and, finally, general disclosure.

Environmental disclosure represents any information related to the reduction of pollution, the conservation of natural resources and energy, aesthetics or any other information about the company's environmental activities or plans. The results in Chapter Five indicate that the disclosed environmental information is relatively low (7% of the total CSED by the sample, as shown in (Table 5.2). The results also show that only 18% of the sampled companies disclosed information concerning environmental activities. As shown in (Table 7.1), the mean of the environmental disclosure is 0.55, with 0 items as a minimum and 16 items as a maximum.

Products and consumer disclosure includes any information related to product development, product safety, product quality and consumer relations. The results from Chapter Five indicate that product and consumer disclosure represents only 3% of the CSED index disclosure with 13.5 % from the sampled companies (figure 5.1 the percentage of CSED categories disclosed in the CSED index). The mean of this category as shown in table 7.1 is 0.24 with 0 minimum items and 6 maximum items.

Finally, general disclosure includes any other social disclosure such as human rights, sustainability and transparency. General disclosure is the least reported category. It accounts for only 4% of the total CSED disclosure by the sampled companies as discussed in Chapter Five (figure 5.1 the percentage of CSED categories disclosed by the Saudi listed companies) with a 0.19 mean and 0 items minimum, 3 items maximum (table 7.1).

7.3 Descriptive statistics of CSED categories based on firm characteristics and corporate governance mechanisms independent variables

This section, together with the regression analysis in this chapter, seeks to answer the supporting *RQ3.a: Do corporate characteristics of Saudi-listed companies influence the level of CSED categories?* and supporting *RQ3.b: Do corporate governance mechanisms of Saudi-listed companies have an effect on the level of CSED categories?* These supporting research questions will be addressed in this section by analysing the correlation between CSED categories and the firm characteristics and corporate governance mechanisms and by the regression analysis discussed later in this chapter.

Based on previous studies and the results from Chapter Six, firm characteristics (Alsaeed, 2006; Esa and Ghazali, 2012; Hackston and Milne, 1996; Jennifer Ho and Taylor, 2007; Reverte, 2009) and corporate governance mechanisms (Esa and Ghazali, 2012; Giannarakis et al., 2014; Michelon and Parbonetti, 2012) have been the centre of a significant numbers of studies in relation to the levels of CSED. It has been argued that larger companies (Alsaeed, 2006; Bayoud et al., 2012; Gray et al., 2001; Hackston and Milne, 1996; Huang and Kung, 2010; Menassa, 2010; Wallace and Naser, 1996), older firms (Habbash, 2015; Muttakin and Khan, 2014; Rettab et al., 2009), more profitable firms (measured by ROA) (Habbash, 2015; Muttakin and Khan, 2014; Rettab et al., 2009) and companies with higher leverage (Esa and Ghazali, 2012; Malone et al., 1993; Branco and Rodrigues, 2008; Said et al., 2009; Habbash, 2015) report more social and environmental information in general. Moreover, it has also been argued that ownership structure (Belal and Owen, 2007; Islam and Deegan, 2008; Khan et al., 2012), the size and independency of the board of directors and the size of the audit firm have positive associations with the level of CSED while CEO duality has a negative association.

In this section the descriptive analysis of the level of each CSED category, specifically in relation to firm characteristics and corporate governance mechanisms, is presented based on stakeholder, legitimacy and institutional theories to investigate the potential factors correlated with each category of CSED among the sampled firms. Each of the CSED categories is addressed in a subsection below.

Environmental disclosure is the first category in the CSED index. In order to investigate the determinants of the level of environmental disclosure, correlation coefficients are studied and the following table (Table 7.2) demonstrates the correlation between CSED categories and firm characteristics and corporate governance mechanisms. Two main hypotheses as follows are tested in this section:

H12: There is a positive association between firm characteristics (firm size, firm age, ROA and leverage) and environmental disclosure.

H13: There is a positive association between corporate governance mechanisms (managerial ownership, government ownership, foreign ownership, board size, board independence, CEO duality and audit firm size) and environmental disclosure.

Table 7.2: Correlations between firm characteristics, corporate governance mechanism and CSED categories.

	ED		HRF		PCD		CID		ED		GD	
	Correlation coefficient	P-value	Correlation coefficient	P-value	Correlation coefficient	P-value	Correlation coefficient	P-value	Correlation coefficient	P-value	Correlation coefficient	P-value
LgFS	*.296******	*<0.001*	*.515******	*<0.001*	*.329******	*<0.001*	*.566******	*<0.001*	*.415******	*<0.001*	*.205******	*0.010*
LgFA	*.285******	*<0.001*	*.530******	*<0.001*	*.370******	*<0.001*	*.566******	*<0.001*	*.462******	*<0.001*	*.165****	*0.039*
ROA	*.304******	*0.006*	*.533******	*0.006*	*.359******	*<0.001*	*.596******	*<0.001*	*.463******	*<0.001*	*.137**	*0.088*
Lev	*.068*	*0.397*	*.265******	*0.001*	*.117*	*0.144*	*.231******	*0.004*	*.285******	*<0.001*	*.107*	*0.182*
ManOwn	*.076*	*0.341*	*.259******	*0.001*	*.207******	*0.009*	*.252******	*<0.001*	*.239******	*0.003*	*.151**	*0.060*
GovOwn	*.201****	*0.012*	*.433******	*<0.001*	*.261******	*0.001*	*.303******	*<0.001*	*.376******	*<0.001*	*.157****	*0.049*
ForOwn	*.128*	*0.109*	*.314******	*<0.001*	*.178****	*0.026*	*.264******	*<0.001*	*.314******	*<0.001*	*-.012*	*0.886*
LgBS	*.219******	*0.006*	*.384******	*<0.001*	*.208******	*0.009*	*.351******	*<0.001*	*.338******	*<0.001*	*.065*	*0.416*
Bind	*.240******	*0.002*	*.330******	*<0.001*	*.205******	*0.010*	*.377******	*<0.001*	*.343******	*<0.001*	*.060*	*0.456*

Dummy[41] variable	*f-stcsatisti*	*Sig.*	*f-stcsatisti*	*Sig.*	*f-stcsatisti*	*Sig.*	*f-stcsatisti*	*Sig.*	*f-stcsatisti*	*Sig.*	*f-stcsatisti*	*Sig.*
CEODual	*.029*	*.865*	*1.525*	*.219*	*.453*	*.502*	*2.249*	*.136*	*.150*	*.699*	*.004*	*.951*
AuditFS	*.370*	*.544*	*4.086***	*.045*	*1.028*	*.312*	*1.201*	*.275*	*3.735**	*.055*	*.654*	*.420*

Notes: The dependent variables are (ED) environmental disclosure, (HRD) human resource disclosure, (PCD) product and consumer disclosure, (CID) community involvement disclosure, (ECD) economic disclosure and (GD) general disclosure. The independent variables are as follows (LogFS): the natural logarithm of firm size, (LogFA) the natural logarithm of firm age, (ROA) return on assets, (Lev) leverage, government ownership (GovOwn), (ManOwn) managerial ownership, (ForOwn) foreign investment ownership, (LogBS) the natural logarithm of the board of directors' size, (Bind) the percentage of independent members on the board of directors, (CEODual) SEO role duality, (AuditFS) audit firm size. Chapter Four presents the detailed definitions of variables employed.

***denotes significant correlation P < 0.01, **denotes significant correlation P < 0.5 and *denotes significant correlation P < 0.1 (Spearman's correlation)

[41] CEO duality and audit firm size are dummy variables (0,1), f-statistic is the appropriate statistical test.

The above table (Table 7.2) shows that there is a statistically significant correlation (Spearman's correlation coefficients) at 1% level between firm size (0.30) and environmental disclosure. Moreover, firm age is significantly positively correlated with environmental disclosure proved by Spearman's correlation coefficient (*0.285*) at 1% level of significance (Table 7.2). Spearman's correlation coefficient in Table 7.2 also shows that ROA (0.304) is positively correlated with environmental disclosure at 1% level. However, leverage is the only firm characteristic that has insignificant correlation with environmental disclosure based on the results from Spearman's correlation coefficients technique (Table 7.2).

Table 7.2 also shows that there is a statistically significant correlation (Spearman's correlation coefficients) between the size of the board of directors (0.22) and the proportion of independent members on that board (0.24) at the 1% level of significance. In addition, governmental ownership is statistically correlated with environmental disclosure based on correlation coefficient (0.20) at 5% level of significance while managerial ownership, foreign investment ownership, CEO duality and audit firm size are insignificant factors in relation to environmental disclosure (Table 7.1).

Human resources disclosure is the second category in the index table 7.2 represents Spearman's correlation coefficient test to examine the relation between firm characteristics and corporate governance mechanisms and human resources disclosure. The following hypotheses are to be tested in this section:

H14: There is a positive association between firm characteristics (firm size, firm age, ROA and leverage) and human resources disclosure.

H15: There is a positive association between corporate governance mechanisms (managerial ownership, government ownership, foreign ownership, board size, board independence, CEO duality and audit firm size) and human resources disclosure.

Human resources disclosure is the most reported category by the Saudi listed companies and all firm characteristics are significantly positively correlated (Spearman's correlation coefficients) with this category as shown in Table 7.2 at 1 % level of significance except for ROA at 5% level of significance. The second firm characteristic, as shown in Table 7.2, firm age (0.53) followed by profitability represented by ROA (0.53) are positively correlated with human resources. Leverage (0.27) is also positively correlated to human resources disclosure according to Spearman's correlation coefficient as shown in Table 7.1.

Corporate governance mechanisms are all significantly positively correlated at the level of human resources disclosure apart from CEO duality which is insignificant. As shown in Table 7.2, the factors are all statistically significant at 1% level of significance, according to Spearman's correlation coefficient, specifically managerial ownership (0.26), governmental ownership (0.43) and foreign investment (0.31). Furthermore, the table shows the coefficients of the board of directors' size (0.38) and the proportion of independent members on the board of directors (0.33). Audit firm size holds a 5% level of significance according to the f-test (4.09) (Table 7.2).

Products and consumers disclosure is the third category in the index. It is one of the categories least disclosed by the Saudi listed companies, as shown in Table 7.1. To investigate the correlation between firm characteristics and corporate governance mechanisms regarding products and consumers disclosure, Spearman's correlation coefficient test has been conducted Table 7.2 and the following hypotheses are to be tested in this section:

H16: There is a positive association between firm characteristics (firm size, firm age, ROA and leverage) and products and consumers disclosure.

H17: There is a positive association between corporate governance mechanisms (managerial ownership, government ownership, foreign ownership, board size, board independence, CEO duality and audit firm size) and products and consumers disclosure.

The results of Spearman's correlation coefficients in Table 7.2 demonstrate the significant positive correlation between three of the firm characteristics, namely firm size (0.33), firm age (0.37) and ROA (0.36). Leverage is the only insignificant firm characteristic in relation to products and consumers disclosure. Regarding corporate governance mechanisms, five corporate governance mechanisms are positively significantly correlated with products and consumer disclosure based on the Spearman's correlation coefficients (Table 7.2). On the other hand, CEO duality and audit firm size are statistically insignificant. The first corporate governance mechanism that is positively correlated with products and consumer disclosure at 1% level of significance is managerial ownership (0.23) followed by governmental ownership (0.26) and foreign ownership (0.18). The board of directors' size (0.21) and the proportion of independent members on the board of directors (0.21) are also correlated with products and consumer disclosure at 1% level of significance.

Community involvement disclosure is the fourth category in the index and the second most reported category by the Saudi listed companies as shown in Table 7.1. Using Spearman's correlation coefficient as the technique by which to investigate the correlation between firm characteristics and corporate governance mechanisms with community involvement disclosure as shown in Table 7.2 the following main hypotheses will be tested:

H18: There is a positive association between firm characteristics (firm size, firm age, ROA and leverage) and community involvement disclosure.

H19: There is a positive association between corporate governance mechanisms (managerial ownership, government ownership, foreign ownership, board size, board independence, CEO duality and audit firm size) and community involvement disclosure.

Table 7.2 shows the results of Spearman's correlation coefficients which demonstrates the significant positive correlation between all firm characteristics, firm size (0.57), firm age (0.57), ROA (0.60) and leverage (0.23), with community involvement disclosure at 1% level of significance. Moreover, of the corporate governance mechanisms, five mechanisms are positively significantly correlated with community involvement disclosure based on Spearman's correlation coefficients at 1% level of significance (Table 7.2). CEO duality and audit firm size are statistically insignificant. Managerial ownership (0.25), governmental ownership (0.30), foreign ownership (0.264), board of directors' size (0.35) and the proportion of independent members on the board of directors (0.36) represent the governance mechanisms that are correlated with community involvement disclosure.

Economic disclosure is the fifth category in the study CSED index. It includes one of the enforceable governmental regulations, that of job nationalisation (Saudisation). This category has therefore been reported in more than half of the sample (Table 5.2). Two hypotheses will be tested in the next section using Spearman's correlation coefficients in to examine the association between firm characteristics and corporate governance mechanisms with economic disclosure:

H20: There is a positive association between firm characteristics (firm size, firm age, ROA and leverage) and economic disclosure.

H21: There is a positive association between corporate governance mechanisms (managerial ownership, government ownership, foreign ownership, board size, board independence, CEO duality and audit firm size) and economic disclosure.

Beginning with firm characteristics, firm size (0.42), firm age (0.46), ROA (0.46) and leverage (0.29) (as in Table 7.2) show positive significant association with economic disclosure at 1% level of significance. Regarding corporate governance mechanisms, managerial ownership (0.24), governmental ownership (0.38), foreign ownership (0.31), board of directors' size (0.34) and the proportion of independent members on the board of directors (0.34) show a 1% level of significance (Table 7.2). Audit firm size is statistically significant with economic disclosure at 10 % level of significance. In contrast, CEO duality is statistically insignificant.

General disclosure is the sixth and final disclosure. This category concerns any general social disclosure that is not specified in any of the previous categories and it is the least disclosed category. Using the same technique, Spearman's correlation coefficients, the association between firm characteristics and corporate governance mechanisms with general disclosure will be investigated to test the following main hypotheses:

H22: There is a positive association between firm characteristics (firm size, firm age, ROA and leverage) and general disclosure.

H23: There is a positive association between corporate governance mechanisms (managerial ownership, government ownership, foreign ownership, board size, board independence, CEO duality and audit firm size) and general disclosure.

By examining the association between firm characteristics and general disclosure using Spearman's correlation coefficients as shown in Table 7.2, there is a significant positive association between general disclosure and three firm characteristics - firm size (0.21) at 1% level of significance, firm age (0.17) at 5% level and ROA (0.14) at 10% level of significance. Leverage is, however, an insignificant factor related to general disclosure. Spearman's correlation coefficients as shown in Table 7.2 indicate a significant positive association at 5% level of significance between governmental ownership (0.16) and managerial disclosure (0.15) and at 10% level of significance. Meanwhile, the other five mechanisms of foreign ownership, board of directors' size, the proportion of independent members on the board of directors, CEO duality and audit firm size are insignificant.

7.4 Statistical method: negative binomial regression

This chapter investigates the determinants of the level of each category of the CSED index, the six dependent variables being environmental disclosure, human resources disclosure, products and consumer disclosure, community involvement disclosure, economic disclosure and general disclosure. The dependent variables in this chapter are limited dependent count variables where the large majority of observations are zeros. A simple, ordinary least-squares regression analysis would yield biased results given that the distribution of the observations for each category is not normal. As a result, a negative binomial regression model has been adopted in this chapter which is an appropriate model for use with count data (Hausman et al., 1984; Crepon and Duguet, 1997; Greene, 1997).

Negative binomial regression is an extension to Poisson regression which is widely used in analysing count data (e.g. Frome, Kutner, and Beauchamp 1973; Frome 1983; Haberman 1974; Holford 1983). Poisson regression conditions state that the mean is equal to the variance. However, if they are not equal then substantial extra-Poisson variation or over-dispersion will be the case. Accordingly, if Poisson regression is used in this study, extra-Poisson variation or over-dispersion will cause misleading results and thus the analysis will be similarly misrepresentative (Paul and Plackett 1978; Cox 1983). Over-dispersion, as is the case in this chapter, is where the variance is larger than mean (as shown in Table 7.1). Moreover, after testing the normality of the dependent variables, i.e. the CSED categories, it can be shown from the descriptive analysis (Table 7.1) that these are not normally distributed[42]. Therefore, as a result of these considerations, negative-binomial regression is the more appropriate method by which to analyse the data in this chapter and this technique has also been applied in previous studies such as Engel (1984), Lawless (1987), Manton et al. (1981).

Six negative binomial models will be developed to investigate the determinants of the level of CSED categories in to answer the third research question which is *RQ3: What are the determinants of the level of CSED in terms of the categories that are reported by the Saudi listed companies?* To address this research question (RQ3), two sub questions will be addressed. The first question is, *do corporate characteristics of the Saudi listed companies influence the level of each category of the CSED*? The second sub question is, *do corporate governance mechanisms of the Saudi listed companies have an effect on the level of each category of the CSED?*

7.5 The determinants of the level of CSED categories

This section consists of six sub sections each investigating the determinants of one of the CSED categories in order to explore and better understand the reasons and incentives behind the variations in the level of disclosure of each category and the variations in the type of each category disclosure by Saudi listed companies. As previously discussed, negative-binomial regression is the technique followed in to test the hypotheses relating to each category.

7.5.1 The determinants of the level of environmental disclosure

The first model is an examination of the relationship between environmental disclosure as the dependent variable and firm characteristics (firm size, firm age, ROA and leverage) and corporate governance mechanisms (managerial ownership, governmental ownership, foreign ownership, board of directors' size, the proportion of independent members in the board of

[42] According to skewness and kurtosis of the dependent variables as statistical tests to assess normality assumption, the results shown in Table 7.1indicate the variables follow negative-binomial distribution which is not normal distribution.

directors, CEO duality and audit firm size) as the independent variables. This model aims to test *H12 and H13.*

The table below (Table 7.3) shows a good fit with the model of Pearson Chi-Square (1.42) which is greater than 0.05 (Gray and Kinnear 2012; Rice, 2007). The negative binomial regression model with the independent variables was significant with the likelihood ratio chi-square equal to 74.92, df =11, $p < 0.01$. After running the model, which includes the variables of the firm characteristics and corporate governance mechanisms as shown in table (Table 7.3), the results will be divided into two subsections. The first contains the firm characteristics variables and the second contains the corporate governance mechanisms.

Starting with firm characteristics, it can be shown (Table 7.3) that there is a significant association between firm size and environmental disclosure (Wald Chi-Square = 7.90) at 1% level of significance. The value of Exp. (B= *0.71)* implies that for a one-unit increase in the firm size, the difference in the logs of expected counts of environmental disclosure is expected to increase by 0.71, given the other predictor variables in the model are held constant. This result supports the sub hypothesis *H12.a: Larger firms are more likely to disclose more environmental information than smaller firms.*

Table 7.3: Negative binomial regression of CSED categories

	ED	HRD	PCD	CID	EcD	GD
Firm Characteristics						
FS	*0.71****	*0.36***	*0.25*	0.42**	*-0.08*	*0.39*
Wald chi-square	*7.90*	*5.23*	*0.54*	4.97	*0.16*	*1.50*
Sig.	*(0.005)*	*(0.022)*	*(0.463)*	(.026)	*(0.687)*	*(0.220)*
FA	*1.96****	*0.88****	*2.43***	1.41***	*0.55**	*0.60*
Wald chi-square	*8.67*	*7.60*	*5.60*	12.39	*2.83*	*0.72*
Sig.	*(0.003)*	*(0.006)*	*(0.018)*	*(<0.001)*	*(0.093)*	*(0.395)*
ROA	*-.03*	*0.02*	*0.03*	.024	*0.04***	*0.00*
Wald chi-square	*2.08*	*2.00*	*0.80*	1.75	*4.72*	*0.02*
Sig.	*(0.15)*	*(0.158)*	*(0.372)*	(.186)	*(0.030)*	*(0.884)*
LEV	*-.91*	*0.56*	*0.16*	-.034	*1.02***	*0.49*
Wald chi-square	*1.25*	*1.85*	*0.03*	*0.01*	*4.78*	*0.28*
Sig.	*(0.265)*	*(0.174)*	*(0.864)*	*(0.945)*	*(0.029)*	*(0.600)*
Corporate Governance						
Man Own	*-0.00*	*-0.01*	*0.00*	0.00	*-0.00*	*0.02*
Wald chi-square	*0.05*	*0.34*	*0.03*	0. .02	*0.06*	*1.12*
Sig.	*(0.832)*	*(0.557)*	*(0.843)*	*(0.88)*	*(0.811)*	*(0.291)*
Gov Own	*0.01**	*0.01**	*0.01*	*0.01*	*0.01*	*0.02**
Wald chi-square	*3.60*	*3.63*	*1.00*	*0.72*	*1.92*	*3.00*
Sig.	*(0.058)*	*(0.057)*	*(0.319)*	*(0.397)*	*(0.166)*	*(0.08)*
For In Own	*0.00*	*-0.00*	*-.01*	0.01	*0.01*	*-0.03*
Wald chi-square	*0.04*	*0.25*	*0.32*	0.32	*0.313*	*1.58*
Sig.	*(0.839)*	*(0.614)*	*(0.574)*	*(0.569)*	*(0.576)*	*(0.209)*
BS	*2.02*	*2.48**	*3.61*	2.04	*1.46*	*1.28*
Wald chi-square	*0.75*	*3.50*	*1.48.*	1.770	*1.02*	*0.22*
Sig.	*(0.387)*	*(0.061)*	*(0.224)*	*(0.183)*	*(0.313)*	*(0.640)*
Bind	*0.02*	*0.01*	*0.02*	.01*	*0.01***	*-0.00*
Wald chi-square	*4.00*	*1.20*	*2.25*	2.86	*4.56*	*0.15*
Sig.	*(0.919)*	*(0.274)*	*(0.134)*	*(0.091)*	*(0.033)*	*(0.701)*

CEO Dual	*0.62*	*-0.78**	*-0.79*	0.54	*-0.43*	*0.29*
Wald chi-square	*1.17*	*2.90*	*0.45*	1.684	*0.78*	*0.11*
Sig.	*(0.279)*	*(0.089)*	*(0.502)*	(0.194*)*	*(0.377)*	*(0.736)*
Audit FS	*-0,01*	*0.44**	*0.50*	-0.135	*0.36*	*0.20*
Wald chi-square	*0.00*	*3.03*	*0.59*	*0.24*	*1.62*	*0.12*
Sig.	*(0.978)*	*(0.082)*	*(0.442)*	*(0.627)*	*(0.203)*	*(0.73)*
Intercept	*-12.12****	*-7.23****	*-12.70****	-7.706***	*-2.76*	*-4.98*
Wald chi-square	*16.13*	*15.89*	*10.51*	13.024	*2.11*	*1.88*
Sig.	*(<0.001)*	*(<0.001)*	*(<0.001)*	*(<0.001)*	*(0.146)*	*(0.170)*
Likelihood Ratio	*74.92****	*101.60****	*50.39****	*113.87****	*60.50****	*18.19**
Chi-Square, Sig.	*(0.001)*	*(0.001)*	*(0.001)*	*(<0.001)*	*(<0.001)*	*(0.077)*
Df	*11*	*11*	*11*	*11*	*11*	*11*
Pearson Chi-Square	*1.42*	*0.79*	*0.79*	*0.94*	*0.71*	*0.96*

Notes: *P*-values are in parentheses. ***, ** and * denote significance at 1%, 5% and 10% levels, respectively. Chapter Four provides a detailed definition of the measurement method of all the independent variables used for the estimation.

Firm age has also been found to be a significant factor that affects the level of environmental disclosure (Wald Chi-Square = 8.67) at 1% level of significance. The value of Exp. (B= 1.96*)* implies that for a one-unit increase in the firm age, the difference in the logs of expected counts of environmental disclosure is expected to increase by 1.96, given the other predictor variables in the model are held constant (Table 7.3). This result provides evidence supporting sub hypothesis *H12.b: Older firms are more likely to disclose more environmental information than newly established firms.*

Firm size and firm age are the two significant firm characteristics that affect the level of environmental disclosure whereas ROA and leverage are insignificant characteristics related to the level of environmental disclosure (Table 7.3). These results lead to a rejection of sub-hypotheses *H12.c and H12.d.* Therefore, the main hypothesis *H12* is partially supported in that the part related to firm size and age is accepted while in the part related to ROA and leverage it is rejected (see Table 7.4).

The corporate governance mechanisms of Saudi listed companies have been also tested by this model in relation to environmental disclosure. The result of the negative binomial regression indicates that only governmental ownership has a positive significant effect on the level of environmental disclosure (Wald Chi-Square = 3.60) at 10% level of significance. The value of Exp. (B= 0.01*)* implies that for a one-unit increase in the governmental ownership, the difference in the logs of expected counts of environmental disclosure is expected to increase by 0.01, given the other predictor variables in the model are held constant (Table 7.3). This result supports sub hypothesis *H13.b: There is a positive association between governmental ownership and environmental disclosure.* All the other corporate governance mechanisms are insignificant in relation to environmental disclosure leading to the rejection of sub hypotheses *H13.a, H13.c, H13.d, H13.e, H13.f and H13.g.* Thus, the main hypothesis *H13* is partially supported in that the part related to governmental disclosure is accepted whilst the parts related to managerial and foreign ownership, board size, board independence, CEO duality and audit firm size are rejected (see Table 7.4).

Table 7.4: Summary of all the hypotheses and findings for the determinants of environmental disclosure model

Explanatory variable	Hypothesis No.	Expected sign	Finding sign	Finding significance	Hypothesis status
Firm characteristics	12	+		Partly significant	Partly accepted
Firm size	12.a	+	+	Significant (1%)	accepted
Firm age	12.b	+	+	Significant (1%)	Accepted
ROA	12.c	+		Insignificant	Rejected
Leverage	12.d	+		Insignificant	Rejected
Corporate governance	13	+		Partly significant	Partly accepted
Managerial ownership	13.a	+		Insignificant	Rejected
Governmental ownership	13.b	+	+	Significant (10%)	Accepted
Foreign ownership	13.c	+		Insignificant	Rejected
Board size	13.d	+		Insignificant	Rejected
Board independence	13.e	+		Insignificant	Rejected
CEO duality	13.f	+		Insignificant	Rejected
Audit firm size	13.g	+		Insignificant	Rejected

Notes: H12: There is a positive association between firm characteristics (firm size, firm age, return on assets and leverage) and the level of environmental disclosure. H12.a: larger firms are more likely to disclose more environmental information than smaller firms. H12.b: older firms are more likely to disclose more environmental information than newly established firms. H12.c: more profitable firms are more likely to disclose more environmental disclosure than less profitable firm. H12.d: firms with higher level of leverage are more likely to disclose more environmental disclosure. H13: there is a positive association between corporate governance mechanisms (managerial ownership, governmental ownership, foreign ownership, board size, the proportion of independent in the board of directors, CEO duality and audit firm size) and the level of environmental disclosure. H13.a there is a positive association between managerial ownership and environmental disclosure. H13.b: there is a positive association between governmental ownership and environmental disclosure. H13.c there is a positive association between foreign investment ownership and environmental disclosure. H13.d there is a positive association between board of directors size and environmental disclosure. H13.e there is a positive association between the proportion of the independent members in the board of directors and environmental disclosure. H13.f there is a positive association between the CEO duality and environmental disclosure. H13.gthere is a positive association between audit firm size and environmental disclosure.

7.5.2 The determinants of the level of human resources disclosure

The second model examines the effect of firm characteristics (firm size, firm age, ROA and leverage) and corporate governance mechanisms (managerial ownership, governmental ownership, foreign ownership, board of directors' size, the proportion of independent members on the board of directors, CEO duality and audit firm size) as the independent variables with human resources disclosure as the dependent variable by testing hypotheses *H14 and H15.*

The Pearson Chi-Square as shown in Table 7.3. indicates a good fit of the model (0.79) which is greater than 0.05 (Gray and Kinnear 2012; Rice 2007). The negative binomial regression model with the independent variables was significant with likelihood ratio chi-square equal to 101.60, df =11, $p < 0.01$. In running the second model, the results will be discussed in two subsections. Firm characteristics variables are the first subsection to be dealt with while corporate governance mechanisms variables are the second.

As shown in Table 7.3, there is a significant association between firm size and human resources disclosure (Wald Chi-Square = 5.23) at 5% level of significance. The coefficient value of firm size is equal to 0.36 which indicates that for a one-unit increase in firm size, the difference in the logs of expected counts of human resources disclosure items is expected to increase by 0.63, given the other predictor variables in the model are held constant. This result supports the sub hypothesis *H14.a: Larger firms are more likely to disclose more human resources information than smaller firms.*

Firm age also has a significant effect on human resource disclosure as Table 7.3 indicates a positive significant association between firm age and human resources disclosure (Wald Chi-Square = 7.60) at 1% level of significance. The coefficient value of firm age is 0.88 implying that for a one-unit increase in firm age, the difference in the logs of expected counts of environmental disclosure is expected to increase by 0.88, given the other predictor variables in the model are held constant (Table 7.3). This result provides evidence supporting sub hypothesis *H14.b: Older firms are more likely to disclose more human resources information than newly established firms.*

As in the first model, the environmental disclosure model, firm size and firm age are the only two significant firm characteristics that affect the level of human resources disclosure while ROA and leverage are insignificant factors (Table 7.3). Based on the results above, sub-hypotheses *H14.c and H14.d* are to be rejected. As a result, the main hypothesis *H14* is partially accepted in the part related to firm size and age while it is rejected in the part related to ROA and leverage (see Table 7.4).

The second area tested in this model refers to the corporate governance mechanisms of Saudi listed companies in relation to human resources disclosure. The result of the negative binomial regression implies that four of the corporate governance mechanisms are significant. Governmental ownership has a positive significant effect on the level of human resources disclosure (Wald Chi-Square = 3.63) at 10% level of significance. The value of Exp. (B= 0.01*)* implies that for a one-unit increase in the governmental ownership, the difference in the logs of expected counts of human resources disclosure is expected to increase by 0.01, given the other predictor variables in the model are held constant (Table 7.3). This result provides evidence supporting sub hypothesis *H15.b: There is a positive association between governmental ownership and human resources disclosure.*

The second corporate governance mechanism to be tested is the board of directors' size. The results (as shown in Table 7.3) indicate a positive significant correlation between board size and human resources disclosure (Wald Chi-Square = 3.50) at 10% level of significance. The table (Table 7.3) also shows that for a one-unit increase in the board of director size, the difference in the logs of expected counts of human resources disclosure is expected to increase by 2.48, given the other predictor variables in the model are held constant based on the Exp.(B=2.48).

CEO duality is also a significant factor that positively affects the level of human resources disclosure (Wald Chi-Square = 2.90) at 10% level of significance (Table 7.3). The Exp. (B=0.78) indicates that the difference in the logs of expected counts of human resources disclosure is expected to increase by 2.90 for a one-unit increase in the board of director size given the other predictor variables in the model are held constant (Table 7.3).

The final corporate governance mechanism that affects the level of human resources disclosure is audit firm size. However, it has a negative effect (Wald Chai-Square = 3.03) at 10% level of significance (Table 7.3). As shown in Table 7.3, the Exp. (B = 0.44) indicates that being audited by one of the big-four audit companies increases the probability that the firm will voluntarily disclose human resource items, where the logarithms of expected counts of human resources disclosure is expected to increase by 0.44, given the other predictor variables in the model are held constant.

Table 7.5: Summary of all the hypotheses and findings for the determinants of human resourced disclosure**.**

Explanatory variable	Hypothesis No.	Expected sign	Finding sign	Finding significance	Hypothesis status
Firm characteristics	14	+		Partly significant	Partly accepted
Firm size	14.a	+	+	Insignificant (5%)	Accepted
Firm age	14.b	+	+	Significant (1%)	Accepted
ROA	14.c	+		Insignificant	Rejected
Leverage	14.d	+		Insignificant	Rejected
Corporate governance mechanism	15	+		Partly significant	Partly accepted
Managerial ownership	15.a	+		Insignificant	Rejected
Governmental ownership	15.b	+	+	Significant (10%)	Accepted
Foreign ownership	15.c	+		insignificant	Rejected
Board size	15.d	+	+	Significant (10%)	Accepted
Board independence	15.e	+		insignificant	Rejected
CEO duality	15.f	+	+	Significant (10%)	Accepted
Audit firm size	15.g	+	+	Significant (10%)	Accepted

Notes: H12: There is a positive association between firm characteristics (firm size, firm age, return on assets and leverage) and the level of environmental disclosure. H12.a: larger firms are more likely to disclose more environmental information than smaller firms. H12.b: older firms are more likely to disclose more environmental information than newly established firms. H12.c: more profitable firms are more likely to disclose more environmental disclosure than less profitable firm. H12.d: firms with higher level of leverage are more likely to disclose more environmental disclosure. H13: there is a positive association between corporate governance mechanisms (managerial ownership, governmental ownership, foreign ownership, board size, the proportion of independent in the board of directors, CEO duality and audit firm size) and the level of environmental disclosure. H13.a there is a positive association between managerial ownership and environmental disclosure. H13.b: there is a positive association between governmental ownership and environmental disclosure. H13.c there is a positive association between foreign investment ownership and environmental disclosure. H13.d there is a positive association between board of directors size and environmental disclosure. H13.e there is a positive association between the proportion of the independent members in the board of directors and environmental disclosure. H13.f there is a positive association between the CEO duality and environmental disclosure. H13.gthere is a positive association between audit firm size and environmental disclosure.

The other three corporate governance mechanisms, managerial and foreign investment ownership and the proportion of independent members on the board of directors, are insignificant in relation to human resources disclosure leading to the rejection of sub hypotheses *H15.a, H15.c, and H15.e.* Thus, the main hypothesis *H15* is partly accepted in the part related to governmental disclosure, board of directors' size, CEO duality and audit firm size while it is rejected in the part related to the other mechanisms (see Table 7.4).

7.5.3 The determinants of product and consumer disclosure

The third model examines the relationship between products and consumer disclosure as the dependent variable and firm characteristics (firm size, firm age, ROA and leverage) and corporate governance mechanisms (managerial ownership, governmental ownership, foreign ownership, board of directors' size, the proportion of independent members in the board of directors, CEO duality and audit firm size) as the independent variables. This model tests the following two main hypotheses:

H16: There is a positive association between firm characteristics (firm size, firm age, return on assets and leverage) and the level of products and consumer disclosure.

H17: There is a positive association between corporate governance mechanisms (managerial ownership, governmental ownership, foreign ownership, board of directors' size, the proportion of independent in the board of directors, CEO duality and audit firm size) and the level of products and consumer disclosure.

The good fit of the model with Pearson Chi-Square (0.79) which is greater than 0.05 (Gray and Kinnear 2012; Rice 2007) is shown in Table 7.3. The negative binomial regression model with the independent variables was significant with likelihood ratio chi-square equal to 50.39, df =11, $p < 0.01$. Table 7.3 shows the results of running the third model which includes the variables of the Saudi firm characteristics and corporate governance mechanisms (as shown in the table below) and products and consumer disclosure.

The results indicate that only one factor out of all the factors is significant (firm characteristics and corporate governance mechanisms) and that is firm age. It can be shown (Table 7.3) that there is a significant positive association between firm age and products and consumer disclosure (Wald Chi-Square = 5.60) at 5% level of significance. The value of Exp. (B= 2*.43)* indicates that for a one-unit increase in the firm age, the difference in the logs of expected counts of products and consumers disclosure is expected to increase by 2.43, given the other predictor variables in the model are held constant. This result supports the sub hypothesis *H16.b: Older firms are more likely to disclose more products and consumer information than newly established firms.* Thus, the main hypothesis *H16* is partly accepted in the part related to firm age. However, all the other sub-hypotheses relating to firm size, ROA, leverage, managerial ownership, governmental ownership, foreign ownership, board size, board independence, CEO duality and audit firm size are rejected (Table 7.6). Moreover, the main hypothesis *H17* which tests the association between corporate governance mechanisms and the level of products and consumer disclosure is rejected based on the results in Table 7.3.

Table 7.6: Summary of all the hypotheses and findings for the determinants of products and consumer disclosure

Explanatory variable	Hypothesis No.	Expected sign	Finding sign	Finding significance	Hypothesis status
Firm characteristics	16	+		Partly significant	Partly accepted
Firm size	16.a	+		Insignificant	Rejected
Firm age	16.b	+	+	Significant (5%)	Accepted
ROA	16.c	+		Insignificant	Rejected
Leverage	16.d	+		Insignificant	Rejected
Corporate governance mechanism	17	+		Insignificant	Rejected
Managerial ownership	17.a	+		Insignificant	Rejected
Governmental ownership	17.b	+		Insignificant	Rejected
Foreign ownership	17.c	+		Insignificant	Rejected
Board size	17.d	+		Insignificant	Rejected
Board independence	17.e	+		insignificant	Rejected
CEO duality	17.f	+		Insignificant	Rejected
Audit firm size	17.g	+		Insignificant	Rejected

H12: There is a positive association between firm characteristics (firm size, firm age, return on assets and leverage) and the level of environmental disclosure. H12.a: larger firms are more likely to disclose more environmental information than smaller firms. H12.b: older firms are more likely to disclose more environmental information than newly established firms. H12.c: more profitable firms are more likely to disclose more environmental disclosure than less profitable firm. H12.d: firms with higher level of leverage are more likely to disclose more environmental disclosure. H13: there is a positive association between corporate governance mechanisms (managerial ownership, governmental ownership, foreign ownership, board size, the proportion of independent in the board of directors, CEO duality and audit firm size) and the level of environmental disclosure. H13.a there is a positive association between managerial ownership and environmental disclosure. H13.b: there is a positive association between governmental ownership and environmental disclosure. H13.c there is a positive association between foreign investment ownership and environmental disclosure. H13.d there is a positive association between board of directors size and environmental disclosure. H13.e there is a positive association between the proportion of the independent members in the board of directors and environmental disclosure. H13.f there is a positive association between the CEO duality and environmental disclosure. H13.gthere is a positive association between audit firm size and environmental disclosure.

7.5.4 The determinants of community involvement disclosure

The fourth model focuses on community involvement which investigates the relationship between firm characteristics (firm size, firm age, ROA and leverage) and corporate governance mechanisms (managerial ownership, governmental ownership, foreign ownership, board of directors' size, the proportion of independent members in the board of directors, CEO duality and audit firm size) as the independent variables and community involvement disclosure as the dependent variable. The aim of this model is to test hypotheses *H18 and H19.*

To test the good fit of the model, Pearson Chi-Square has been checked (0.94) and it is greater than 0.05 (Gray and Kinnear 2012; Rice 2007) as shown in Table 7.3. The results of the negative binomial regression model with the independent variables was significant with likelihood ratio chi-square equal to 113.87, df =11, $p < 0.01$. The results from running the model which include the variables of the Saudi firm characteristics and corporate governance mechanisms as shown in Table 7.3, indicate two firm characteristics and one corporate governance mechanism are significant.

Starting with firm characteristics, it can be shown (Table 7.3) that there is a significant positive association between firm size and community involvement disclosure (Wald Chi-Square = 4.97) at 5% level of significance. The value of Exp. (B= *0.42)* indicates that for a one-unit increase in the firm size, the difference in the logs of expected counts of products and consumers disclosure is expected to increase by 0.42, given the other predictor variables in the model are held constant. This result supports the sub hypothesis *H18.a: Larger firms are more likely to disclose more community involvement information than smaller firms.*

Firm age has also been found to be a significant factor that affects the level of environmental disclosure (Wald Chi-Square = 12.39) at 1% level of significance. The value of Exp. (B= 1.41*)* implies that for a one-unit increase in the firm age, the difference in the logs of expected counts of community involvement disclosure is expected to increase by 1.41, given the other predictor variables in the model are held constant (Table 7.3). This result supports sub hypothesis *H18.b: Older firms are more likely to disclose more community involvement information than newly established firms.* Firm size and firm age are the only firm characteristics that influence the level of community involvement so, in this case, the main hypothesis *H18* is partly accepted in the part related to firm size and age and rejected with relation to ROA and leverage (see Table 7.4).

Table 7.7: Summary of all the hypotheses and findings for the determinants of community involvement disclosure

Explanatory variable	Hypothesis No.	Expected sign	Finding sign	Finding significance	Hypothesis status
Firm characteristics	18	+		Partly significant	Partly accepted
Firm size	18.a	+	+	Significant (5%)	Accepted
Firm age	18.b	+	+	Significant (1%)	Accepted
ROA	18.c	+		Insignificant	Rejected
Leverage	18.d	+		Insignificant	Rejected
Corporate governance mechanism	19	+		Partly significant	Partly accepted
Managerial ownership	19.a	+		Insignificant	Rejected
Governmental ownership	19.b	+		Insignificant	Rejected
Foreign ownership	19.c	+		Insignificant	Rejected
Board size	19.d	+		Insignificant	Rejected
Board independence	19.e	+	+	Significant (10%)	Accepted
CEO duality	19.f	+		Insignificant	Rejected
Audit firm size	19.g	+		Insignificant	Rejected

H12: There is a positive association between firm characteristics (firm size, firm age, return on assets and leverage) and the level of environmental disclosure. H12.a: larger firms are more likely to disclose more environmental information than smaller firms. H12.b: older firms are more likely to disclose more environmental information than newly established firms. H12.c: more profitable firms are more likely to disclose more environmental disclosure than less profitable firm. H12.d: firms with higher level of leverage are more likely to disclose more environmental disclosure. H13: there is a positive association between corporate governance mechanisms (managerial ownership, governmental ownership, foreign ownership, board size, the proportion of independent in the board of directors, CEO duality and audit firm size) and the level of environmental disclosure. H13.a there is a positive association between managerial ownership and environmental disclosure. H13.b: there is a positive association between governmental ownership and environmental disclosure. H13.c there is a positive association between foreign investment ownership and environmental disclosure. H13.d there is a positive association between board of directors size and environmental disclosure. H13.e there is a positive association between the proportion of the independent members in the board of directors and environmental disclosure. H13.f there is a positive association between the CEO duality and environmental disclosure. H13.gthere is a positive association between audit firm size and environmental disclosure.

Regarding the corporate governance mechanisms of Saudi listed companies, only one mechanism has been found significant when running the model in relation to community involvement disclosure. The proportion of independent members on the board of directors has a positive significant effect on the level of environmental disclosure (Wald Chi-Square = 2.86) at 10% level of significance. The value of Exp. (B= 0.01) implies that for a one-unit increase in the governmental ownership, the difference in the logs of expected counts of environmental disclosure is expected to increase by 0.01, given the other predictor variables in the model are held constant (Table 7.3). This result leads to the acceptance of sub hypothesis *H19.e: There is a positive association between the proportion of independent members on the board of directors and community involvement disclosure.* All the other corporate governance mechanisms are insignificant in relation to community involvement disclosure leading to a rejection of sub hypotheses *H18.a, H18.b, H18.c, H18.d, H13.f and H13.g.* Thus, the main hypothesis *H13* is partly accepted in the part related to the proportion of independent members on the board of directors and rejected in relation to all other mechanisms (see Table 7.4).

7.5.5 The determinants of the level of economic disclosure

Economic disclosure in the fifth category in the CSED index and Table 7.3 shows the results of the model which examines the association between economic disclosure as the dependent variable and firm characteristics (firm size, firm age, ROA and leverage) and corporate governance mechanisms (managerial ownership, governmental ownership, foreign ownership, board of directors' size, the proportion of independent members in the board of directors, CEO duality and audit firm size) as the independent variables. This model tests two main hypotheses H20 and *H21.*

Table 7.3 shows a good fit of the model with Pearson Chi-Square (0.71) which is greater than 0.05 (Gray and Kinnear 2012; Rice 2007). The negative binomial regression model with the independent variables was significant with likelihood ratio chi-square equal to 60.50, df =11, $p < 0.01$. The results from the negative binomial regression (as shown in Table 7.3) which includes the variables of the Saudi firm characteristics and corporate governance mechanisms indicate that only firm characteristics have an effect on environmental disclosure. It can be shown (Table 7.3) that there is a significant positive association between firm age and economic disclosure (Wald Chi-Square = 2.83) at 10% level of significance. The value of Exp. (B= *0.55)* implies that for a one-unit increase in the firm age, the difference in the logs of expected counts of economic disclosure is expected to increase by 0.55, given the other predictor variables in the model are held constant. This result leads to the acceptance of sub hypothesis *H20.b: Older firms are more likely to disclose more economic information than newly established firms.*

Moreover, profitability (ROA) is also positively significant with economic disclosure (Wald Chi-Square = 4.72) at 5% level of significance. The value of Exp. (B= *0.04)* indicates that for a one-unit increase in the ROA, the difference in the logs of expected counts of economic disclosure is expected to increase by 0.04, given the other predictor variables in the model are held constant. This result provides evidence to accept sub-hypothesis *H20.c: More profitable firms are more likely to disclose more economic information than less profitable firms.*

Leverage also has a positive significant effect on economic disclosure (Wald Chi-Square = 4.78) at 5% level of significance. The value of Exp. (B= 1*.02)* implies that for a one-unit increase in the level of leverage, the difference in the logs of expected counts of economic disclosure is expected to increase by 1.02, given the other predictor variables in the model are held constant. This result supports sub-hypothesis *H20.d: Firms with higher levels of disclosure are more likely to disclose more economic information than firms with lower levels of disclosure.* The above discussion partly supports the main hypothesis *H20.* Related to firm age, ROA and leverage but not firm size while rejecting *H21* as there is no evidence found for any association between corporate governance mechanisms and economic disclosure (see, Table 7.3 and Table 7.4).

Table 7.8: Summary of all the hypotheses and findings for the determinants of economic disclosure

Explanatory variable	Hypothesis No.	Expected sign	Finding sign	Finding significance	Hypothesis status
Firm characteristics	20	+		Partly significant	Partly Accepted
Firm size	20.a	+		Insignificant	Rejected
Firm age	20.b	+	+	Significant	Accepted
ROA	20.c	+	+	Significant	Accepted
Leverage	20.d	+	+	Significant	Accepted
Corporate governance mechanism	21	+		Insignificant	Rejected
Managerial ownership	21:a	+		Insignificant	Rejected
Governmental ownership	21.b	+		Insignificant	Rejected
Foreign ownership	21.c	+		Insignificant	Rejected
Board size	21.d	+		Insignificant	Rejected
Board independence	21.e	+		Insignificant	Rejected
CEO duality	21.f	+		Insignificant	Rejected
Audit firm size	21.g	+		Insignificant	Rejected

H12: There is a positive association between firm characteristics (firm size, firm age, return on assets and leverage) and the level of environmental disclosure. H12.a: larger firms are more likely to disclose more environmental information than smaller firms. H12.b: older firms are more likely to disclose more environmental information than newly established firms. H12.c: more profitable firms are more likely to disclose more environmental disclosure than less profitable firm. H12.d: firms with higher level of leverage are more likely to disclose more environmental disclosure. H13: there is a positive association between corporate governance mechanisms (managerial ownership, governmental ownership, foreign ownership, board size, the proportion of independent in the board of directors, CEO duality and audit firm size) and the level of environmental disclosure. H13.a there is a positive association between managerial ownership and environmental disclosure. H13.b: there is a positive association between governmental ownership and environmental disclosure. H13.c there is a positive association between foreign investment ownership and environmental disclosure. H13.d there is a positive association between board of directors size and environmental disclosure. H13.e there is a positive association between the proportion of the independent members in the board of directors and environmental disclosure. H13.f there is a positive association between the CEO duality and environmental disclosure. H13.gthere is a positive association between audit firm size and environmental disclosure.

7.5.6 The determinants of the level of general disclosure

The last category in the CSED index is general disclosure. The general disclosure model examines the relationship between general disclosure and firm characteristics and corporate governance mechanisms as shown in Table 7.3 to test the two hypotheses *H22 and H23.*

This model has a good fit with Pearson Chi-Square (0.96) which is greater than 0.05 (Gray and Kinnear 2012; Rice 2007). The negative binomial regression model with the independent variables was significant with likelihood ratio chi-square equal to 18.19, df =11, p (0, 07). The results of the model, which includes variables of the Saudi firm characteristics and corporate governance mechanisms as shown in the table below (Table 7.3), indicate that there is no association between any of the firm characteristics (firm size, firm age, ROA and leverage) and general disclosure. These results lead to a rejection of both the main and the sub-hypothesis related to firm characteristics and general disclosure (*H22, H22.a, H22.b, H22.c* and *H22d*).

On the other hand, two of the corporate governance mechanisms are positively correlated to general disclosure - governmental ownership and the proportion of independent members on the board of directors. Governmental ownership is the first mechanism that has a significant positive effect on general disclosure (Wald Chi-Square = 3.00) at 10% level of significance. The value of Exp. (B= *0.02)* indicates that for a one-unit increase in the governmental ownership, the difference in the logs of expected counts of general disclosure is expected to increase by 0.02, given the other predictor variables in the model are held constant. This result provides evidence to accept sub-hypothesis *H23.b: There is a positive association between governmental ownership and general disclosure.*

The proportion of independent members on the board of directors also has a significant positive association with general disclosure (Wald Chi-Square = 4.56) at 5% level of significance. The value of Exp. (B= *0.01)* implies that for a one-unit increase in the proportion of independent members on the board of directors, the difference in the logs of expected counts of general disclosure is expected to increase by 0.01, given the other predictor variables in the model are held constant. This result supports the sub hypothesis *H23.e: There is a positive association between the proportion of independent members on the board of directors and general disclosure.* These results partly support the main hypothesis *H23* which tests the effect of corporate governance mechanisms on general disclosure (see Table 7.9).

Table 7.9: Summary of all of the hypotheses and findings for the determinants of environmental disclosure model

Explanatory variable	Hypothesis No.	Expected sign	Finding sign	Finding significance	Hypothesis status
Firm characteristics	22	+		Insignificant	Rejected
Firm size	22.a	+	+	Insignificant	Rejected
Firm age	22.b	+	+	Insignificant	Accepted
ROA	22.c	+		Insignificant	Accepted
Leverage	22.d	+		Insignificant	Accepted
Corporate governance	23	+		Partly significant	Partly accepted
Managerial ownership	23.a	+		Insignificant	Rejected
Governmental ownership	23.b	+	+	Significant (10%)	Accepted
Foreign ownership	23.c	+		Insignificant	Rejected
Board size	23.d	+		Insignificant	Rejected
Board independence	23.e	+		Significant (5%)	Rejected
CEO duality	23.f	+		Insignificant	Rejected
Audit firm size	23.g	+		Insignificant	Rejected

H12: There is a positive association between firm characteristics (firm size, firm age, return on assets and leverage) and the level of environmental disclosure. H12.a: larger firms are more likely to disclose more environmental information than smaller firms. H12.b: older firms are more likely to disclose more environmental information than newly established firms. H12.c: more profitable firms are more likely to disclose more environmental disclosure than less profitable firm. H12.d: firms with higher level of leverage are more likely to disclose more environmental disclosure. H13: there is a positive association between corporate governance mechanisms (managerial ownership, governmental ownership, foreign ownership, board size, the proportion of independent in the board of directors, CEO duality and audit firm size) and the level of environmental disclosure. H13.a there is a positive association between managerial ownership and environmental disclosure. H13.b: there is a positive association between governmental ownership and environmental disclosure. H13.c there is a positive association between foreign investment ownership and environmental disclosure. H13.d there is a positive association between board of directors size and environmental disclosure. H13.e there is a positive association between the proportion of the independent members in the board of directors and environmental disclosure. H13.f there is a positive association between the CEO duality and environmental disclosure. H13.gthere is a positive association between audit firm size and environmental disclosure.

7.6 Discussion of the results

From the discussions above, it can be shown that firm age, firm size, profitability (ROA) and leverage are effective firm characteristics that affect, at different levels, the CSED categories as shown in Table 7.10: summary of the determinants of CSED categories as well as governmental ownership board of directors' size, the proportion of independent members on the board of directors, CEO duality and audit firm size.

Firm age is the most significant determinant as it positively affects five of the CSED categories across Saudi listed companies, these being environmental disclosure, human resource disclosure and community involvement disclosure at 1% level of significance and products and consumer disclosure at 5% level and economic disclosure at the 10% level. Firm age is the only factor that influences products and consumer disclosure. The positive correlation between firm age and the five categories (Table 7.10: summary of the determinants of CSED categories) as part of CSED, has been suggested by stakeholder theory, legitimacy theory and institutional theory, as discussed in Chapter Three. Stakeholder groups of older firms have higher expectations than newly established firms and this is what the stakeholder theory suggests. Stakeholders expect older firms to be environmentally responsible and to pay more attention to employees, consumers, product quality and community involvement and, finally, to contribute to the economy. Moreover, older companies are keen to maintain the legitimacy that they have gained. By reporting information about CSED categories, firms can gain, maintain or repair legitimacy and this is what the legitimacy theory suggests (Alsaeed, 2006).

The institutional theory supports the idea that older firms usually influence newly established companies and therefore they pay more attention to the environment, community, employees, consumers and economic involvement in to gain a competitive advantage. In addition, there is the notion that older companies are constantly under governmental and media pressure (Watts and Zimmerman, 1986). Looking at the three theories discussed, across Saudi listed companies, older companies report more information regarding the environmental, human resource, products and consumer, community involvement and economic categories than newly established companies.

Table 7.10: summary of the determinants of CSED categories

	Firm characteristics					Corporate governance mechanisms					
	FS	FA	ROA	Lev	Man Own	Gov Own	Forin Own	BS	Bind	CEO	Aud FS
ED	*0.71******	*1.96******	-	-	-	*0.01**	-	-	-	-	-
HRD	*0.36****	*0.88******	-	-	-	*0.01**	-	*2.48**	-	*-0.78**	*0.44**
PCD	-	*2.43****	-	-	-	-	-	-	-	-	-
CID	*0.42****	*1.41******	-	-	-	-	-	-	*.0.01**	-	-
EcD	-	*0.55**	*0.04****	*1.02****	-	-	-	-	*0.01****	-	-
GD	-	-	-	-	-	*0.02**	-	-	-	-	-
Total	*3*	*5*	*1*	*1*	*0*	*3*	*0*	*1*	*2*	*1*	*1*

Notes: the dependent variables are; environmental disclosure (ED), human resource disclosure (HRD), product and consumer disclosure (PCD), community involvement disclosure (CID), economic disclosure (ECD) and other general disclosure (GD). The independent variables are defined as follows: the natural logarithm of the corporate social and environmental disclosure(lgCSED), the natural logarithm of firm size (lgFS), the natural logarithm of firm age (lgFA) return on asset (ROA), leverage, managers ownership (ManOwn),, foreign investment ownership(ForInOwn), government ownership (GovOwn), the natural logarithm of the Board of directors size (lgBS), the percentage of independence members in the board of directors (Ind), CEO duality (CEODual), Audit firm size (AuditFS), chapter four presents the detailed definitions of variables employed.

***denotes significant correlation P < 0.01, **denotes significant correlation P < 0.5 and *denotes significant correlation P < .1 (spearman's correlation)

Firm size is the second most affective characteristic, influencing three categories, environmental disclosure at 1% level of significance, human resources disclosure and community involvement disclosure at 5% level (Table 7.10). The result of firm size in relation to theories is very similar to firm age and supports the argument that larger firms disclose more social and environmental disclosure as explained by stakeholder theory, legitimacy theory and institutional theory (Kamal Naser and Nuseibeh, 2003). Larger firms report more environmental, human resources and community involvement information than smaller firms because they need to satisfy their stakeholder groups who, being large companies, expect more disclosure from them. Additionally, larger firms are expected to provide their employees with more benefits than smaller firms so they therefore report more comprehensively to confirm that they are acting as expected.

Moreover, the legitimacy theory suggests that larger companies care more about their legitimacy than smaller firms (Branco and Rodrigues, 2008; Reverte, 2009) in addition to well larger firms leading smaller firms, an argument put forward by the institutional theory (mimetic isomorphism). Larger Saudi listed companies report more environmental, human resource and community involvement information than smaller firms. This is because being environmentally responsible, being involving in community activities and paying more attention to employees are time and resource consuming activities that smaller firms may find some difficulty dealing with.

Furthermore, the Saudi government puts greater pressure on larger firms to be more socially responsible than smaller firms (coercive isomorphism). For example, as regards job nationalisation (Saudisation), the percentage of Saudisation depends on the size of a company and the number of employees. As a result, larger companies disclose more social and environmental information in order to be entitled to receive government benefits and rewards.

Profitability (ROA) and leverage have the same level of effect as both of them determine one category that being economic disclosure at 5% level of significance (Table 7.10). Both characteristics have been found to be positively correlated with economic disclosure. This might be because contributing to the economy and reporting that contribution show how strong the company is.

In the case of more profitable companies, management decide to disclose more social and environmental information in order to prove their ability to maximise shareholder value and thus increase managerial compensation (Alsaeed, 2006). Additionally, and based on the stakeholder theory, companies with high profitability disclose more voluntary information, including social and environmental disclosure, to show stakeholders and the public their achievements and to promote a positive impression of their performance (Branco and Rodrigues, 2008; Reverte, 2009).

In the context of economic disclosure, government pressure on companies with higher profitability might be greater than that placed on less profitable companies. Therefore, more profitable companies report more on economic issues such as job nationalization (Saudisation). This argument is supported by the institutional theory (coercive isomorphism). Furthermore, more profitable companies tend to report more social and environmental disclosure, particularly economic disclosure (Saudisation), to prove to society that they are capable of meeting societal expectations and needs and that they legitimately operate in society (Roszaini M. Haniffa and Cooke, 2005) as proposed by the legitimacy theory. According to the agency theory, managers of firms with high profitability tend to show their achievements in detail because this reflects on their reputation, image and salary. (Gallego-A lvarez and Quina-Custodio, 2016).

In the context of leverage, companies with a higher level of leverage tend to report more social and environmental information to appeal to creditors, stakeholders and investment trusts. This argument is supported by the stakeholder theory as well as the legitimacy theory and agency theory. They also disclose more social and environmental information, particularly regarding economics, to show that they are legitimate to operate, although they may be high in debt. This is what the legitimacy theory proposes.

Moreover, as suggested by the agency theory, agency costs grow with an increase of the level of leverage (Elzahar and Hussainey, 2012). Therefore, managers of companies with high levels of leverage disclose more information including social and environmental information in order to lower agency cost (Alsaeed, 2006; Gallego-A lvarez and Quina-Custodio, 2016). When the debt level increases, a conflict of interest between shareholders and creditors results so, and to prevent this from happening, creditors seek more information in order to reduce information asymmetry and to make sure that the company will be able to meet its debts in the future (Gallego-A lvarez and Quina-Custodio, 2016).

Governmental ownership is the most dominant factor that influences the level of disclosure of three categories, these being environmental disclosure, human resources disclosure and general disclosure, all at 1% level of significance (Table 7.10). This result is expected in a developing country such as Saudi Arabia where the government has a significant influence on a company's plans and actions. Companies with higher governmental ownership are more likely to disclose environmental, human resources and general disclosure. Based on the stakeholder theory, Saudi listed companies pay attention to governmental laws and regulations especially if the company is owned by the government itself. In addition, there is a greater demand for accountability and transparency for companies under government ownership. Governmental ownership is the only factor that affects general disclosure as it includes disclosure and transparency standards.

The proportion of independent members on the board of directors is the second significant factor affecting two categories, economic disclosure at 5% level of significance and community involvement disclosure at 10% level (Table 7.10). Saudi listed companies with a higher number of independent members on the board of directors tend to disclose more economic and community involvement information. Based on the agency theory, the existence of independent members on the board of directors places pressure on management to ensure that they operate successfully as well as satisfying stakeholders' requirements. They control managers' opportunism to protect shareholders and reduce agency costs and information asymmetry (Allegrini and Greco, 2013; Fama and Jensen, 1983; Jensen and Meckling, 1976) because they can control the actions of managers about companies' strategies and plans (Said et al., 2009). It is argued that the existence of independent board members enhances accountability, transparency and CSED. They encourage managers to act in alignment with the norms and values of society to ensure their legitimacy, as implied by the legitimacy theory. Therefore, an association is found between the existence of independent members on the board of directors and community involvement and economic disclosure. In Saudi Arabia, the phenomenon of independent board members is considered new (Mandourah 2012). According to the Saudi Corporate Governance Code, independent board members shall not be less than two members or one-third of the members, whichever is greater (article 12: e).

Board size, CEO duality and audit firm size affect one category, human resource disclosure at 10% level of significance (Table 7.10). However, CEO duality has a negative effect which explains the argument that CEO role duality negatively affects the control system, presents a conflict of interest and reduces the level of accountability (Michelon and Parbonetti, 2014). According to Roberts et al. (2005) it is more effective for the company to separate the CEO and Chairman roles, as each individual will be able to do each job with minimum conflict (Albassam, 2014). Moreover, companies which separate the two roles achieve greater quality in decision making concerning stakeholders than companies which prefer CEO role duality (J. Li et al., 2008). The agency theory supports the separation of the roles of CEO and Chairman suggesting that the separation increases the efficiency of the control system which, in turn, protects stakeholders' rights and results in better disclosure quality (Yaseen Al-Janadi et al., 2013). Therefore, companies who separate the roles of CEO and Chairman disclose more human resource information than companies with the CEO occupying dual roles.

In the context of large audit firms, there is a positive association between audit firm size and human resource disclosure. Large audit companies are very concerned about their reputation and therefore are more willing to associate with firms that disclose more information in their published financial reports (Alsaeed, 2006; Depoers, 2000). The agency theory is concerned with audit quality since providing more reliable and credible information in reports reduces agency costs and using big audit firms enhances the quality of disclosure (Al-Janadi et al., 2013; Eng and Mak, 2003; Haniffa and Cooke, 2002; Jensen and Meckling, 1976). This argument is consistent with the concept of the legitimacy theory in that the large audit firms consider their legitimacy and therefore request a higher level of information reporting including CSED.

7.7 Chapter summary

In conclusion, this chapter examines the determinants of CSED categories that are in the CSED index. Having examined the social and environmental information reported by 157 Saudi listed companies, the results show that all firm characteristics in this study (firm size, firm age, ROA and leverage), in addition to some corporate governance mechanisms (governmental ownership, board of directors size, board independence, CEO duality and audit firm) affect the level of social and environmental disclosure categories.

The negative binomial results indicate that firm age is the most influential factor that determines the level of five categories, environmental, human resources, products and consumers, community involvement and economic disclosure. Firm age is, in fact, the only factor that affects products and consumer disclosure.

In second place, firm size and governmental ownership both have an effect on environmental disclosure and human resources disclosure. While firm size affects the level of community disclosure, governmental ownership affects economic disclosure. The proportion of independents on the board of directors affects two categories, community involvement and economy disclosure. Finally, CEO duality and audit firm size affect only one area, which is human resources disclosure.

In other words, our results show that human resources, the most reported category, is affected by the largest number of determinants (firm size, firm age, governmental ownership, board of directors' size, CEO duality and audit firm size), followed by economic disclosure which is influenced by four determinants (firm age, ROA, leverage and board independence). Environmental disclosure and community involvement disclosure are influenced by the same number of factors, three factors (firm size and firm age for both categories, governmental ownership for environmental disclosure and board independence for community involvement). Products and consumer disclosure is affected by firm age as well as general disclosure which is affected by governmental ownership.

The results of this chapter indicate that, in Saudi Arabia, social and environmental disclosure across all the categories is still to be considered at a basic level. Although it is a voluntary activity, most of the information reported as social and environmental activities, such as human resources and economic disclosure, is on an enforced basis or is based on a cultural or religious foundation such as community involvement. There are no rules or guidelines that companies may follow when performing or reporting social and environmental activities.

Chapter 8: Research conclusion

8.1 Introduction

This study investigates corporate social and environmental disclosure and its categories in the Saudi business context, in addition to the determinants of the level of disclosure. As discussed in Chapter One and Four, this study has employed a quantitative method to: (i) investigate the extent and nature of CSED in Saudi-listed companies; (ii) examine the determinants of CSED, which are the firm characteristics and corporate governance mechanisms; (iii) examine the determinants of each category of CSED (environmental, human resource, product and consumer, community involvement, economic and general social disclosures), which are the firm characteristics and corporate governance mechanisms. The study employed content analysis technique by using the annual reports of the Saudi-listed companies.

This chapter seeks to achieve two main objectives. Firstly, to present a summary of the empirical findings of the thesis regarding both the extent and nature of the CSED and shed light on the determinants of CSED and its categories. Secondly, to highlight the contribution and implications of the research findings, as well as the research's limitations and suggestions for future research. This chapter is organised as follows. Section 8.2 reiterates the research questions and the methodology employed to answer the research questions. Section 8.3 presents a summary of the research empirical findings of Chapter 5, 6 and 7 with relation to the four theories. Section 8.4 highlights the research's contribution and the results' practical implications. Section 8.5 discusses the limitations of the research. The last section 8.6 presents suggestions for future research.

8.2 Overview of the thesis

The distinctiveness of the Saudi business context and the significance of its economy both provide a motivation for investigating CSED practice. As discussed in Chapter Two, Saudi Arabia is a developing country which has institutional, regulatory and contextual characteristics that are similar to Islamic and Arab countries (Al-Matari et al., 2012; Hussainey and Al-Nodel, 2008). Therefore, Islamic perspectives and values affect life activities in Saudi

Arabia, such as the economic system, laws and regulations, and business (Abdul Rahman, 1998; Kamla, 2009; Sarkar, 2008). Saudi Arabia is one of the most competitive economies and the world's fastest reforming business environment. It has achieved an important economic position at international level as a member of the G20 (Al-Matari et al., 2012) and is the largest economy in the Middle East and North Africa (MENA) (Al-Filali and Gallarotti, 2012; Al-Matari et al., 2012, Piesse et al., 2012). Additionally, it is the largest free market in (MENA) region (SAGIA, 2013). As a result of the previous factors that give Saudi a unique position, some of the Saudi regulations have been changed, such as, the accounting profession (Al-Rehaily, 1992), corporate governance code (Albassam, 2014), investment policies and stock market regimes (Tadawul, 2015). Some of these regulations and codes require companies to pay more attention to accountability, transparency and voluntary disclosure. Corporate social and environmental disclosure (CSED) is one of the voluntary disclosures that is expected to increase due to the recent development and growth that have taken place in Saudi Arabia. Thus, the main aim of this study is to investigate CSED practice in Saudi Arabia.

This thesis has been organised into eight chapters. Chapter One is the research introduction, which provides a brief background of the research, as well as the motivations for conducting this research. Chapter One also presents the research aim, objectives and research questions. Chapter Two presents the context of Saudi Arabia, highlighting the political and economic systems, in addition to the Saudi culture. It sheds light on the accounting and finance system, corporate social disclosure and corporate governance framework. Chapter Three identifies the key concepts of corporate social responsibility and corporate social and environmental disclosure in general and in Saudi Arabia. Chapter Three also discussed the relevant CSED theories, which are stakeholder, legitimacy, institutional and agency theories. It also discusses a review of the related literature, which includes developing and developed countries, and empirical literature on the determinants of CSED in general and CSED categories in particular. The research questions are posed in Chapter Three and the related hypotheses are presented. Chapter Four discusses the research methodology, which includes the research paradigm (positivism) and the philosophical assumptions. The chapter also discusses the research quantitative method and explains the data collection process and the used statistical analysis methods. Chapter Five presents from the descriptive statistics the results of the extent of CSED, as well as the nature of CSED, which includes the categories and the information reported by

Saudi-listed companies. Chapter Six examines the determinants of CSED, which are the firm characteristics and corporate governance mechanisms, by presenting the descriptive analysis of the determinants of CSED, in addition to the empirical findings and results of the multivariate regression analysis. Chapter Seven examines the determinants of each category of CSED, which are the firm characteristics and corporate governance mechanisms. It also presents the empirical findings and the results of the negative binomial regression analysis. Chapter Eight is the final chapter and presents a summary of the findings of the research, as well as the contribution and the practical implications. It also discusses the limitations of the study and offers suggestions for future research.

8.3 Findings and their Theoretical Justifications

This study has adopted multi-theoretical perspectives, based on the view that there is no one single theory that can be employed to justify and explain the social and environmental disclosure findings on its own. It uses four theories to explain CSED phenomena in Saudi Arabia: stakeholder, legitimacy, institutional and agency theory. These theories are the most common theories in addressing CSED (Deegan and Unerman, 2006) (for more details see Chapter Three). The next sub-sections will discuss the findings of this research under each research question, which are justified with the assistance of the previously mentioned theories.

8.3.1 Research Question 1: What is the extent and nature of the social and environmental information that is reported by the Saudi-listed companies?

Research question 1 aims to address parts of the two research objectives. The first objective is to examine the extent of the CSED by using content analysis to analyse the annual reports of the Saudi-listed companies. The second objective is to analyse the nature of the CSED in terms of the type of categories that have been reported by Saudi Arabian-listed companies. In order to address these objectives, an index has been constructed to investigate the CSED practice in Saudi Arabia. This index includes six main categories, which are environment, human resources, product and consumer, community involvement, economic and other social disclosure. To examine the extent and nature of CSED, descriptive statistical analysis has been done and the results indicate that the majority of Saudi-listed companies disclose at least one item about their social and environmental activities (70% of the companies). This result indicates there is an increase in Saudi-listed companies' awareness of CSED and they are cognizant of the importance of its contribution to the society and community in which they are operating, and their obligation to report their contributions[43].

The three categories reported the most by Saudi-listed companies, and so have the greatest emphasis is placed on them, are human resources issues (e.g. training and development, employee pay and benefit etc.), which is reported by 41% of the companies, followed by community involvement (e.g. education and training contribution, donation, public health and safety contribution etc.), reported by 24%, and economic disclosure (e.g. economic performance, job nationalisation etc.), by 20%. (For details, see Chapter 6). These three categories are related to government regulations that could place pressure on companies. Additionally, since community involvement comes in second place, it is clear that when it comes to reporting, Saudi Arabia's status as a traditional Islamic country affects the nature of CSED.

In the context of human resource disclosure, employees are considered as powerful stakeholders that companies pay attention to when performing and reporting, and this is consistent with stakeholder theory. Aspects that companies consider include achieving employee loyalty, lowering employee turnover rates, retaining and attracting good employees. Legitimacy theory suggests that companies are confirming their legitimacy by reporting on human resource information. This category is the most frequently reported by Saudi-listed companies and the result is consistent with previous studies that have been conducted in developing countries (Alsaeed, 2006; Belal, 2001; Gray et al., 2001; Guthrie and Parker, 1990; Ratanajongkol et al., 2006). Additionally, a significant number of government enforcement regulations fall under the human resource category that includes aspects, such as the minimum wage, working hours and the retirement system. According to institutional theory (coercive isomorphism), companies report human resource information in order to prove their regulatory compliance to the

[43] This study depends on one source of data which is the annual reports. By looking at stand-alone report of one of the socially responsible companies, it can be shown that more reporting on social and environmental activities. This could increase the level of CSED in the Saudi context.

government. Peer pressure might also be responsible for the high percentage of Saudi-listed companies that report human resource information. Furthermore, another institution isomorphism (mimetic isomorphism) places pressure on companies to report human resource information so that they can successfully gain a competitive advantage. Consequently, they can both attract and retain good employees.

As mentioned previously, community involvement disclosure was the second most reported category by Saudi listed companies. This finding is expected in a developing Islamic country and traditional culture where group rights are prioritised over those of individuals and generosity is one of the common behaviours. According to legitimacy theory, companies use this type of information and activities to prove that they are capable of meeting both relative stakeholders and societal expectations and have the legitimacy to operate. By reporting their community involvement information, companies are also demonstrating to the government that their activities are aligned with government plans and strategies. This argument is supported by institutional theory (coercive isomorphism). Regarding donations to authorised charities, the amount that is donated to charities by companies is deducted from the amount of zakat and income tax that the company pay to the Authority of Zakat and Taxation from their profits. The disclosure of community contributions has a positive effect on both a company's reputation and image and leads to a competitive advantage. This argument is supported by institutional theory (mimetic isomorphism).

Economic disclosure is the third category reported by Saudi-listed companies. This category includes job nationalisation (Saudisation), which is the most frequently reported issue and has been reported by 87 Saudi-listed companies (56% of the reporting companies). The Ministry of Labour has encouraged the nationalisation of jobs by hiring new employees or replacing foreign employees to decrease unemployment rates. Furthermore, they impose fines on companies that do not comply with the regulations, while rewarding companies that are complying. According to institutional theory (coercive isomorphism), companies choose to disclose this category because of pressure being placed on them by the government. Legitimacy theory also suggests that companies disclosed this category to prove they are contributing to the economy and playing their part in solving national and international issues, and therefore have the legitimacy to operate.

On the other hand, the environmental disclosure category is not popular in the annual reports of the Saudi-listed companies' (7% of the total disclosure). The majority of companies that reported this category were industrial companies that have a direct or indirect effect on the environment. The implementation of this category is considered to be uneconomical, since applying environmentally friendly operating systems, including equipment, is said to incur significant expenses. Companies that exhibit a greater awareness of environmental issues when operating are considered to be a new but growing phenomenon. Generally, products and consumer disclosure are reported the least (at 4% and 3%).

Together with the institutional pressure that is posed by regulations, competitors, international standards and the status of Saudi Arabia as a traditional Islamic country, these results indicate there has been a significant increase in the level of CSED in Saudi Arabia. International pressure comes from the international standards and regulations that companies are required to comply with in some cases, which could explain the low mean of the level of CSED (7 information items). Although companies are aware of the importance of CSED, they choose to disclose a low number of items. This could be due to the absence of regulations and codes that help to shape CSED practice in Saudi Arabia. While this research question investigates the extent and nature of CSED in Saudi Arabia, the second question empirically examines the determinants of CSED by Saudi-listed companies, which will be discussed in the next sub-section.

8.3.2 Research Question 2: What are the determinants of the level of CSED reported by Saudi-listed companies?

The second research question aims to address the other parts of the study objective, which are related to investigating what are the determinants of the level of CSED in general. Under this research question, there are two sub-questions. The first one is related to firm characteristics, which aims to examine the effect of specific such characteristics (e.g., firm size, firm age, profitability (ROA) and leverage) on the level of CSED in Saudi Arabia. *RQ2.a: Do the corporate characteristics of Saudi Arabian-listed companies affect the level of CSED?* The second sub-question is related to corporate governance and aims to examine the effect of specific corporate governance mechanisms (e.g., ownership, board size, board independence, CEO duality and audit firm size) on the level of CSED in Saudi Arabia. *RQ2.b: Do corporate* *governance mechanisms of Saudi Arabian listed companies affect the level of the CSED?* Based on previous studies and the determinants of CSED and related theories, 11 hypotheses were developed (for details, see Chapter 3). These variables were predicted to have an influence on the level of CSED when the hypothesis and the model were being developed. The model aims to investigate the determinants of CSED in Saudi Arabia uses a sample of 157 Saudi-listed companies.

A descriptive statistical analysis and multiple regression analysis were carried out to investigate the predicted influence. The findings of the regression analysis were presented in Chapter 6 and are summarised in Table 6.14. The results are in line with previous studies, indicating that all four of the firm characteristics (*H1*, *H2*, *H3* and *H4*) are significant; firm size (for example, see: Branco and Rodrigues 2008; Muttakin and Khan, 2014; Hussainey et al., 2011; Habbash, 2015), firm age (for example, see: Muttakin and Khan, 2014; Skouloudis et al, 2013; Habbash, 2015), profitability (ROA) (for example, see: Kansal et al., 2014; Muttakin and Khan, 2014; Skouloudis et al., 2013) and leverage (for example, see: Habbash, 2015; Esa and Ghazali, 2012; Branco and Rodrigues, 2008; Said et al., 2009). These findings are justified by the legitimacy, stakeholder, institutional and agency theories.

According to stakeholder theory, firm size, firm age, profitability and leverage are expected to have a positive correlation with the level of CSED. Stakeholder groups of larger firms have greater expectations that need to be satisfied and place greater pressure than the stakeholders of smaller firms do (Roberts 1992, Meek et al., 1995). Additionally, older firms have more experience than newly established firms do in dealing with stakeholders' needs, the media and government rules and regulations. Furthermore, the stakeholders of old firms have higher expectations and so older firms disclose more social and environmental information to satisfy their stakeholders' needs. Moreover, managers of firms with large profits tend to disclose more social and environmental information to persuade stakeholders of their ability to maximise shareholder value and the companies' achievements, which leads to an increase in compensation (Alsaeed, 2006). Furthermore, companies with a higher level of leverage are more concerned about satisfying stakeholders, including creditors, investors and shareholders, and so provide the information they require (Alsaeed, 2006). Creditors require a higher level of disclosure from firms with high leverage to protect their funds (Jensen, 1986), as explained by stakeholder theory.

Based on legitimacy theory, larger firms are expected to disclose more social and environmental information in order to maintain their legitimacy and good reputation (Alsaeed, 2006). Larger firms, like older ones, are expected to disclose more social and environmental information as they have built their legitimacy throughout the years they have been in operation and are keen to maintain this legitimacy and not lose it. Moreover, managers of high-profit companies promote a positive image by disclosing social and environmental information to maintain both their legitimacy and good image (Branco and Roderigues, 2008; Reverte, 2009). Additionally, companies with a higher level of leverage aim to prove to stakeholders, and especially creditors, they are legitimate by providing more social and environmental information.

The government, the media and public groups give more attention to disclosure carried out by larger firms than they do to disclosure by smaller firms (coercive and normative isomorphism), as shown by institutional theory (Watts and Zimmerman, 1986). Another explanation for the positive correlation between firm size and CSED might be their wish to gain a competitive advantage over smaller firms (mimetic isomorphism). Moreover, old firms usually take the lead in business and, as a result, disclose more social and environmental information to gain a competitive advantage over newly established companies.

From an agency theory's perspective, managers of highly profitable firms tend to show their achievements in detail, since it reflects well on their reputation, image and hence their pecuniary benefits. In contrast, when profits are low, managers tend to hide some information and disclose less to avoid any negative effects on their companies' market values (Gallego-A lvarez and Quina-Custodio, 2016). Regarding a company's leverage, agency costs increase with an increase in the level of leverage (Elzahar and Hussainey, 2012). As a result, managers of companies with a high level of leverage disclose more information, including social and environmental information to lower agency cost (Alsaeed, 2006; Gallego-A lvarez and Quina-Custodio, 2016). When the debt level increases, a conflict of interest between the shareholders and creditors results. To prevent this from happening, creditors seek more information to both reduce information asymmetry and make sure that the company will be able to pay the debt in future (Gallego-A   lvarez and Quina-Custodio, 2016).

In Saudi Arabia, Saudi labour law and regulations state that companies are required to participate in the Saudisation programme the government implemented in 2011 (Department of Labour and Employment, Ministry of Labour). As a result, larger, older and more profitable companies are expected to participate more in this programme, as they have more employees, experience and financial ability, and so can recruit more Saudi employees or replace foreign employees in occupied jobs. Moreover, those companies are more likely to apply for governmental tenders to do this than smaller companies are, as well as apply for government projects, as they are requested to submit a Saudisation certificate[44] to show their legibility. Therefore, the level of CSED is found to be higher in large companies, older companies and more profitable companies than it is in smaller companies, newly established companies and less profitable ones.

In the context of corporate governance mechanisms, the regression analysis, which was carried out in line with previous studies, shows that only two mechanisms (*H5* and *H8*)– governmental ownership (for example, see: Said et al., 2009; Khan, 2010; Haniffa and Cooke, 2005; Conyon and He, 2011) and audit firm size (for example, see: Raffournier, 1995; Ntim *et al*., 2012a; Schiehll *et al*., 2013) – are significant in explaining the variations that exist in the extent of CSED. The level of CSED is affected by governmental laws, rules and regulations (Li and Zhang, 2010). Based on institutional theory (coercive isomorphism), government ownership demands more accountability and transparency, which means more reporting, including social and environmental reporting. This result confirms the argument that government owned companies are socially responsible, as governments promote transparency and disclosure practices, including reproducing CSED (Said et al., 2009: Ntim et al., 2013; Al-Janadi et al, 2013; Habbash, 2015).

[44] A Saudisation certificate is given by the Saudi Arabian Ministry of Labour to firms that achieve the Saudisation target.

Agency theory suggests that governmental ownership will lead to a balance being reached between the goals of the principals (governmental owners) and agents (managers), and the company will generate profits whilst continuing to be socially responsible. Another reason for the positive association between governmental ownership and CSED level is the fact that the government establishes regulations to ensure that companies remain socially responsible. Companies owned by the government have a responsibility to set an example to other companies by being socially responsible and this is evidenced in reporting (Habbash, 2015). Therefore, government ownership encourages good governance, accountability, transparency, corporate social responsibility and disclosure (Al-Janadi et al., 2013; Eng and Mak, 2003; Habbash, 2015; Ntim et al., 2013; Said et al., 2009). Stakeholder theory can also explain the association between government ownership and the level of CSED, as it shows that companies disclose CSED to satisfy the needs and expectations of powerful stakeholders, such as government shareholders (Gray et al., 1996; Robert, 1992).

The size of an audit firm is found to positively affect the level of CSED in this research, as large audit firms (the big four firms)[45] seem to be more independent and more able to limit the opportunistic behaviour of managers due to their experience (Haniffa and Cooke, 2002; Eng and Mak, 2003) than small ones. In addition, the big four firms may require the disclosure of more information in order to protect their reputation. Agency theory is concerned with audit quality, since providing more reliable and credible information in the reports will reduce agency costs and big audit firms enhance the quality of disclosure (Al-Janadi et al., 2013; Eng and Mak, 2003; Haniffa and Cooke, 2002; Jensen and Meckling, 1976). This argument is consistent with the concept of legitimacy theory, which argues that large audit firms take their legitimacy into account and, therefore, request more information reporting, including CSED. In contrast, smaller audit firms are more concerned about losing clients and, as a result, give serious consideration to the customers' needs (Alsaeed, 2006; Malone et al., 1993). As a result, small audit firms are expected to require less information to be disclosed.

On the other hand, managerial and foreign ownership, board size, the proportion of independent members on the board of directors and CEO duality are all insignificant variables when

[45] The big four audit firms are PricewaterhouseCoopers, Deloitte and Touche, Ernst and Young and KPMG.

examining the determinants of CSED. It can be concluded from the regression analysis results that six hypotheses were accepted (firm size, firm age, ROA, leverage, governmental ownership and audit firm size). However, five hypotheses were rejected (managerial and foreign ownership, board size, the proportion of independent directors on the board of directors and CEO duality) (Table 6.14).

This research question examined the determinants of the level of CSED in general. The next research question investigates each category of the corporate social and environmental disclosure index separately, as well as how they relate to the determinants (firm characteristics and corporate governance mechanism). Negative binomial regression is used to investigate whether the firm characteristics and corporate governance mechanism affect each CSED category separately.

8.3.3 Research Question 3: What are the determinants of the level of CSED in terms of the categories that are reported by Saudi Arabian-listed companies?

From the previous research question, it has been found that all the firm characteristics that have been included in this study have a significant influence on the level of CSED. Additionally, two corporate governance mechanisms have a significant influence on CSED, which are government ownership and the size of the audit firms. To investigate this more, this research question aims to address the fourth objective, which examines the determinants of the level of each CSED category reported by Saudi Arabian-listed companies. There are two sub-questions under the third research question; one aims to examine the effect of the specific firm characteristics (e.g., firm size, firm age, profitability (ROA) and leverage) on the level of CSED categories in Saudi Arabia. *RQ3.a: Do the corporate characteristics of Saudi Arabian-listed companies affect the level of each category of CSED?* The other sub-question is related to the aim of corporate governance, which is to examine the effect of specific corporate governance mechanisms (e.g., ownership, board size, board independence, CEO duality and audit firm size) on the level of CSED categories in Saudi Arabia. *RQ3.b: Do the corporate governance characteristics of Saudi Arabian-listed companies affect the level of each category of the CSED?*

In order to address this research question, 6 models have been developed and each model examines the determinant of each category. 12 hypotheses are to be tested, with 2 for each category; one is related to the firm characteristics (*H12*, *H14*, *H16*, *H18*, *H20*, *H22*) and one to corporate governance mechanisms (*H13*, *H15*, *H17*, *H19*, *H21*, *H23*). The findings of the negative binomial regression analyses, which have been done to test the hypothesis, indicate that the firm characteristics (firm age, firm size, profitability (ROA) and leverage) are effective and they affect, at different levels, the CSED categories, as shown in table 7.10 as well as the corporate governance mechanisms (governmental ownership, board size, the proportion of independent board members, CEO duality and audit firm size). (For details, see Table 7.4.)

The findings indicate that firm age is the most influential factor that determines the level of the five categories (environmental, human resources, products and consumers, community involvement and economic disclosure). Firm age is, in fact, the only factor that affects both products and consumer disclosure. The positive correlation between firm age and the five CSED categories has been suggested by stakeholder theory, legitimacy theory and institutional theory. Stakeholder theory suggests that stakeholder groups of older firms have higher expectations than newly established ones, as stakeholders expect older firms to be environmentally responsible and pay more attention to employees, consumers, product quality and community involvement, as well as contribute to the economy. Moreover, older companies are keen to maintain the legitimacy they have gained over time. Legitimacy theory suggests that firms can gain, maintain or repair their legitimacy by reporting information about the CSED categories (Alsaeed, 2006).

Firm size and governmental ownership are in second place, as they both influence environmental disclosure and human resources disclosure. While firm size affects the level of community disclosure, governmental ownership affects economic disclosure. Based on stakeholder theory, larger firms report more environmental, human resources and community involvement information than smaller firms do because they need to satisfy their stakeholder groups who expect more disclosure from large companies. Additionally, larger firms are expected to provide their employees with more benefits than smaller firms, so they report more comprehensively to confirm they are acting as expected. Moreover, the legitimacy theory suggests that larger companies care more about their legitimacy than smaller firms do (Branco and Rodrigues, 2008; Reverte, 2009). In addition, larger firms wish to lead smaller firms, an argument that is put forward by the institutional theory (mimetic isomorphism). Larger Saudi-listed companies report more about their environmental, human resource and community involvement information than smaller firms do. This is because smaller firms can find it more difficult to be environmentally responsible, to become involved in community activities and to pay more attention to employees, as these are both time and resource consuming activities. The Saudi government puts greater pressure on larger firms to be more socially responsible than smaller firms (coercive isomorphism). For example, the percentage of Saudisation depends on the size of a company and the number of employees. As a result, larger companies disclose more social and environmental information in to be entitled to receive government benefits and rewards.

The proportion of independent directors on the board of directors affects two categories – 'community involvement' and 'economy disclosure'. According to the agency theory, the existence of independent members on the board places pressure on the management to ensure that they operate successfully and satisfy stakeholders' requirements. Independent members also protect shareholders and reduce agency costs and information asymmetry by controlling the opportunism of managers (Allegrini and Greco, 2013; Fama and Jensen, 1983; Jensen and Meckling, 1976), as they can control the managers' actions regarding the companies' strategies and plans (Said et al., 2009) by encouraging managers to act in alignment with the norms and values of society. This is done to ensure their legitimacy, as implied by the legitimacy theory. In Saudi Arabia, the phenomenon of independent board members is considered to be new (Mandourah 2012). According to the Saudi Corporate Governance Code, there should be at least two independent members on the board or one-third of the members, whichever is the greater (article 12: e).

Profitability (ROA) and leverage have the same level of effect, as they both determine economic disclosure. This might be because contributing to the economy and reporting shows how strong the company is.

When it comes to profits, managers disclose more social and environmental information in order to prove their ability to maximise shareholder value and, thus, increase managerial compensation (Alsaeed, 2006). According to the stakeholder theory, companies with high profitability disclose more voluntary information, including social and environmental disclosure, in order to show stakeholders and the public their achievements and promote a positive impression of their performance (Branco and Rodrigues, 2008; Reverte, 2009). Furthermore, government pressure on companies with higher profits might be greater than the pressure it is on less profitable companies. Therefore, more profitable companies report more on economic issues, such as job nationalisation (Saudisation). This argument is supported by the institutional theory (coercive isomorphism).

Moreover, more profitable companies tend to report more social and environmental disclosure, particularly economic disclosure (Saudisation), to prove they are capable of meeting societal expectations and needs and so can legitimately operate in society (Haniffa and Cooke, 2005), as proposed by the legitimacy theory. According to the agency theory, managers of highly profitable firms tend to show their achievements in detail because it reflects on their reputation, image and salary (Gallego-A lvarez and Quina-Custodio, 2016).

In the context of leverage, companies with a higher level of leverage tend to report more social and environmental information to appeal to creditors, stakeholders and investment trusts. This argument is supported by the stakeholder theory, as well as the legitimacy theory and agency theory. They also disclose more social and environmental information, particularly regarding economics, to show that they have a legitimacy to operate, even though they may be highly in debt. This is what the legitimacy theory proposes. Moreover, agency costs grow when there is an increase in the level of leverage (Elzahar and Hussainey, 2012), as suggested by the agency theory. Therefore, managers of companies with a high level of leverage disclose more information, including social and environmental information, in order to lower agency costs (Alsaeed, 2006; Gallego-A lvarez and Quina-Custodio, 2016). A conflict of interest between shareholders and creditors results when debt levels increase, and to prevent this from happening, creditors seek more information to reduce information asymmetry and make sure the company is able to meet its debts in future (Gallego-A lvarez and Quina-Custodio, 2016).

Finally, the size of the board, CEO duality and audit firm size all affect only one area, which is human resources disclosure. CEO duality has a negative effect by presenting a conflict of interest and reducing the level of accountability (Michelon and Parbonetti, 2014). Moreover, companies that separate the two roles make better quality decisions concerning stakeholders than companies that prefer CEO role duality (Li et al., 2008). The agency theory, which supports the separation of the roles of CEO and Chairman, suggests that this separation increases the efficiency of the control system and so protects stakeholders' rights, which results in better quality disclosure (Al-Janadi et al., 2013). Therefore, companies who separate the roles of the CEO and Chairman disclose more human resource information than those that have the CEO occupying dual roles.

Regarding board size, it is argued that a larger board increases the level of knowledge, making them more capable of managing the company (Pfeffer, 1972). Additionally, it helps to reduce the uncontrolled power of the managers (Al-Janadi et al., 2013). To overcome this problem and limit the size of the board, the Saudi Corporate Governance Code has specified that all boards should have a minimum of 3 members and a maximum of 11. Each company has the right to choose an appropriate number of board directors that best suits the company's needs. According to agency theory, the board of directors is a corporate governance mechanism that aims to reduce the managers' opportunistic behaviour by controlling their decisions. It also reduces the conflict of interests between shareholders and managers, which only increases agency costs. Moreover, the board seeks to improve the company's accountability, transparency and social responsibility.

Large audit companies are very concerned about their reputation and, therefore, more willing to associate with firms that disclose more information in their published financial reports (Alsaeed, 2006; Depoers, 2000). The agency theory is concerned with audit quality, since providing more reliable and credible information in reports reduces agency costs, and using big audit firms will enhance the quality of disclosure (Al-Janadi et al., 2013; Eng and Mak, 2003; Haniffa and Cooke, 2002; Jensen and Meckling, 1976). This argument is consistent with the concept of the legitimacy theory, which states that large audit firms consider their legitimacy and, therefore, request a higher level of information reporting, including CSED.

In another way of presenting the results, it can be seen that human resources – the most reported category – is affected by the largest number of determinants (firm size, firm age, governmental ownership, board size, CEO duality and audit firm size), followed by economic disclosure, which is influenced by a total of four determinants (firm age, ROA, leverage and board independence). Environmental disclosure and community involvement disclosure are both influenced by three factors (firm size and firm age for both categories, governmental ownership for environmental disclosure and board independence for community involvement), while products and consumer disclosure are affected by firm age, as well as general disclosure, which is affected by governmental ownership.

The results of this chapter indicate that social and environmental disclosure across all the categories is still at a basic level in Saudi Arabia. Although it is a voluntary activity, most of the information reported about social and environmental activities, such as human resources and economic disclosure, is either enforced or based on a cultural or religious foundation, such as community involvement. There are no rules or guidelines that companies can follow when performing or reporting social and environmental activities.

8.4 Research contribution and practical implications of the results

After presenting the finding of this research, it can be shown that this research contributes to CSED literature in the following ways (as discussed in Chapter One).

Firstly, this study contributes to CSED literature about developing countries in general and Saudi Arabia in particular by examining the extent and nature of CSED and its categories, as well as the determinants of Saudi-listed companies. Although there have been a significant number of studies that have addressed the issues of corporate social and environmental disclosure (CSED) in the past, few of them have been carried out in developing countries in general and Saudi Arabia in particular (Al-Janadi et al., 2013; Alsaeed, 2006; Habbash, 2015). Furthermore, this study contributes to the literature by explaining the results with the help of four theories: the stakeholder, legitimacy, institutional and agency theory. This considers the scarcity of CSED literature about Saudi Arabia and that disclosure studies conducted in Saudi Arabia have either not used a specific theory to explain the results or have depended on a single theory. Additionally, the research findings provide scope for future research.

Secondly, to the best of the researcher’s knowledge, this is the first study in Saudi Arabia to analyse in detail CSED information reported by listed companies, including the categories, sub-categories and items. This insight analysis contributes to Saudi literature by providing an overview of what Saudi-listed companies both perform and report on about their corporate social and environmental activities and information.

Thirdly, this study contributes to the extent of the literature there is about the determinants of CSED by providing empirical evidence on the factors that determine the level of CSED. This study's results about the effect of some of the firm characteristics and corporate governance mechanisms on the level of CSED will add to the literature by providing multiple theoretical justifications in particular, as well as by relating the results to the Saudi context. The factors investigated in this study include the firm characteristics (firm size, firm age, profitability, leverage) and corporate governance (firm ownership structure, board size and independence, CEO duality and audit firm size).

Fourthly, the study contributes to CSED literature because of the scarcity of existing literature that examines the determinants of CSED categories, particularly economic disclosure which includes Saudisation. To the best of the researcher's knowledge, this is the first study that investigates the factors that affect the choice and level of CSED categories in Saudi Arabia. The types of CSED (categories) differ between the Saudi-listed companies.
The index of this study is constructed of six different categories that contribute to the literature by providing empirical evidence about the determinants of the level of each of the CSED categories. Adding economic disclosure to the index considers a significant contribution as it includes Saudisation which has been found from the results of this study a significant category that Saudi companies disclose. This will contribute to the literature as it is considered the first study to add this category. The results were justified by using a multi-theoretical perspective and have been put in the Saudi context framework. The factors used to investigate the determinants of the choice and the level of the CSED categories are firm characteristics (firm size, firm age, profitability, leverage) and corporate governance (firm ownership structure, board size and independence, CEO duality and audit firm size).

This study has several implications that are of particular relevance to Saudi Arabia (the context of the study), but the implications may equally be applicable to other Islamic, developing and Arab countries (e.g. the GCC, MENA countries etc.) in a situation similar to Saudi Arabia. This research has practical implications that are particularly important to policy-makers and regulatory bodies (e.g. the Ministry of Commerce and Industry, Ministry of Labour, the Capital

Market Authority (CMA), the Saudi Stock Exchange etc.), organisations and researchers. The findings of this study will assist in a greater understanding of whether the empirical evidence supports and justifies the need for a change in the decisions of organisations and policy-makers or the rules and regulations of regulatory authorities to enhance the ability of companies to engage in social and environmental activities by reporting these activities and information in Saudi Arabia. That will be discussed below.

The findings suggest a series of recommendations to policy-makers on the assessment of CSED practice. These aim to improve coordination between the regulatory bodies that implement CSR and CSED through the regulations. Another implication of the findings is that stakeholders need greater protection through the better enforcement of regulations. More awareness and regulation of corporate environmental responsibilities are both needed, as the research findings indicate there is a low level of environmental disclosure. Product and consumer category should also be given more attention in terms of the quality of products, safety and consumer rights and relations. The CMA should improve the standards of CSED disclosure by increasing awareness of corporate social responsibility and disclosure, which would enhance the accountability and transparency of companies. These standards or requirements should be decided by a committee of people with expertise in social and environment related issues. This committee could consist of members from different ministries or departments, such as the Ministry of Labour, and these representatives would enable the committee to ensure that the reporting requirements (e.g. minimum wage, health and safety measures, and emission level, etc.) were consistent with the legislation.

The results that showed the determinants of CSED and its categories could have a number of implications for Saudi-listed companies. By knowing what are the determinants that influence CSED the policy maker and related authority could improve the standards of CSED disclosure which lead to better quality of CSED. For example, companies that are large, old and profitable should focus on all types of disclosure to face the pressures and expectations that can arise from different groups within society due to a company's status. The findings will help companies to understand what society considers to be legitimate and has to be reported. The finding of the determinants of the CSED categories will assist in forming the government rules and regulation such as applying fines on larger companies that are not paying attention to

Saudisation than smaller companies (Firm size). The results indicate that the mean of the CSED by Saudi-listed companies is lower than the average highlights the need to improve the quality of CSR disclosure in the annual reports. Previous studies in environmental disclosure have found that the quality of environmental disclosure is positively correlated with a company's environmental reputation (see: Hasseldine, Salama, and Toms, 2005; van Staden and Hooks, 2007). This is consistent with previous findings and it is suggested that companies should improve the quality of CSR disclosure that could improve their CSR reputation.
The next section will present the limitations and suggestions for future studies.

8.5 Limitations and future research suggestions

This section highlights the limitations of the research and suggests areas of future research. This study focuses on CSED in Saudi-listed companies and, as a result, the findings cannot be generalised to include non-listed companies. Some of these non-listed companies significantly contribute to the Saudi economy and are worthy of being studied, such as family firms. A suggestion is that future research should include or focus on non-listed companies to aid understanding of CSED. This would provide another overview, as well as help policy-makers to implement disclosure policies for both listed and non-listed companies in Saudi Arabia.

A limitation of this study could be that it relies on only one source of information, the annual reports, to examine CSR information disclosed by Saudi Arabia-listed companies. To depend on one source when examining CSED could mean that the study fails to represent the actual level of disclosure. Previous studies have found that companies are increasingly publishing stand-alone CSR or sustainability reports (see GRI 2010). Van Staden and Hooks (2007) argued that the internet has become a common tool to disclose CSR information that is also less costly (Wanderley, Lucian, Farache, and de Sousa Filho, 2008). Although this study has used a single source to collect CSED information – the annual reports – this source is more reliable than the others (Omar and Simon, 2011). According to Knutson (1992, cited in Albassam, 2014, p.334), "*the annual report is the major reporting document and every other report is in some respect subsidiary or supplementary to it*". As mentioned in Chapter 4, listed firms are obliged to publish their reports on the Saudi Stock Exchange (Tadawul) website. Therefore, future research should consider other information sources for examining CSED, such as the stand-alone sustainability reports and the internet. This would provide an opportunity to discover the differences between the annual reports, stand-alone CSR reports and website CSR disclosure.

This study is a cross-sectional research that has been carried out across listed firms in Saudi Arabia and did not consider the differences that time might have on CSED. However, it was found from investigating a sample of annual reports published in 2010, 2011 and 2012 that disclosure in the three years was very similar. As a result, the study focused on 2012, the most recent year at the time of collecting the data. For future study, it might be beneficial to use a panel data that includes both cross-sectional and time-series data.

Another limitation relates to the single method that was used to conduct the research, which was quantitative research using secondary data. Quantitative data has been criticised for not providing sufficient interpretation of the results because of the extreme dependence on statistical data (Boyd *et al.,* 2012). Therefore, future research should collect primary in order to explore the results of the research, as well provide insight analysis. A mixed-methods approach is suggested for future studies as this data can be helpful in explaining and interpreting the results (Boyd *et al.,* 2012), 2012).

The binary scoring system of the CSED index used in this study is considered to be a limitation. Although binary coding is highly common in most corporate disclosure studies (Gompers *et al.,* 2003; Ammann *et al.,* 2013), the technique has some limitations (Beattie *et al.,* 2004) as it ignores the importance of the disclosed information, unlike weighted scoring (Hassan and Marston, 2010). However, the justifications for using binary coding have been discussed in Chapter 4. Weighted scoring could be used to overcome this problem in future studies.

Although the study considers the most influential determinants, some variables are not included for several reasons, such as the unavailability of data (i.e., R and D expenditure). Future research could include more determinants, such as media exposure, remuneration committee size and committee meetings.

Another interesting issue that could be investigated is the significant number of large companies that own charities with separate financial accounting systems. A few years ago, the government restricted donations to unknown charities (that are not registered with the government). By doing so, the government aimed to control unknown charities and consequently prevent terrorism financing. This could explain the missing CSR information from listed companies' annual reports, as they might consider charities' annual reports as CSR disclosure.

References

Abbott, W. F., and Monsen, R. J. (1979). On the measurement of corporate social responsibility: Self-reported disclosures as a method of measuring corporate social involvement. *Academy of Management Journal*, 501-515.

Abdul Rahman, A. B. (1998). Disclosure of corporate financial information in Malaysia.

Abdullah, A. (2007). *Empirical analysis of corporate governance and firm performance.* University of Portsmouth.

Adams, C., and Frost, G. (2004). The development of corporate web-sites and implications for ethical, social and environmental reporting through these media. *The Institute of Chartered Accountants of Scotland, Edinburgh*.

Adams, C. A., and Harte, G. (1998). The changing portrayal of the employment of women in British banks' and retail companies' corporate annual reports. *Accounting, Organizations and Society, 23*(8), 781-812.

Adams, C. A., Hill, W.-Y., and Roberts, C. B. (1998). Corporate social reporting practices in Western Europe: legitimating corporate behaviour? *The British Accounting Review, 30*(1), 1-21.

Adams, C. A., and Kuasirikun, N. (2000). A comparative analysis of corporate reporting on ethical issues by UK and German chemical and pharmaceutical companies. *European Accounting Review, 9*(1), 53-79.

Adams, J. (2007). *Research methods for graduate business and social science students*. IN: Sage Publications India.

Aguilera, R. V., Williams, C. A., Conley, J. M., and Rupp, D. E. (2006). Corporate governance and social responsibility: A comparative analysis of the UK and the US. *Corporate Governance: An International Review, 14*(3), 147-158.

Ahmed Haji, A. (2013). Corporate social responsibility disclosures over time: evidence from Malaysia. *Managerial auditing journal, 28*(7), 647-676.

Al-Janadi, Y., Rahman, R. A., and Omar, N. H. (2011). The level of voluntary disclosure practices among public listed companies in Saudi Arabia and the UAE: Using a modified voluntary disclosure index. *International Journal of Disclosure and Governance, 9*(2), 181-201.

Al-Janadi, Y., Rahman, R. A., and Omar, N. H. (2013). Corporate Governance Mechanisms and Voluntary Disclosure in Saudi Arabia. *Research Journal of Finance and Accounting, 4*(4), 25-35.

Al-Matari, Y. A., Al-Swidi, A. K., Fadzil, F. H. B., Fadzil, H., and Al-Matari, E. M. (2012). Board of Directors, Audit Committee Characteristics and the Performance of Saudi Arabia Listed Companies. *International Review of Management and Marketing, 2*(4), 241.

Al-Moataz, E., and Hussainey, K. (2012). Determinants of corporate governance disclosure in Saudi companies. *Journal of Economics and Management, 5*(1), 52-84.

Al-Razeen, A., and Karbhari, Y. (2004). Interaction between compulsory and voluntary disclosure in Saudi Arabian corporate annual reports. *Managerial Auditing Journal, 19*(3), 351-360.

Al-Rehaily, A. S. F. (1992). *The evolution of accounting in Saudi Arabia: A study of its relevance to the social and economic environment.* University of Hull.

Al-Shammari, B., and Al-Sultan, W. (2010). Corporate governance and voluntary disclosure in Kuwait. *International Journal of Disclosure and Governance, 7*(3), 262-280.

Albassam. (2014). *Corporate Governance, Voluntary Disclosure and Financial Performance: An Empirical Analysis of Saudi Listed Firms Using A Mixed-Methods Research Design.* Adam Smith

Ali, W. (2014). CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE (CSRD): A CASE STUDY OF PAKISTAN. Middlesex University

Aljifri, K. (2008). Annual report disclosure in a developing country: the case of the UAE. *Advances in Accounting, 24*(1), 93-100.

Allegrini, M., and Greco, G. (2013). Corporate boards, audit committees and voluntary disclosure: Evidence from Italian listed companies. *Journal of Management and Governance, 17*(1), 187-216.

AlNodel, A., and Hussainey, K. (2010). Corporate governance and financing decisions by Saudi companies. *Journal of Modern Accounting and Auditing, 6*(8), 1.

Alsaeed, K. (2006). The association between firm-specific characteristics and disclosure: the case of Saudi Arabia. *Managerial Auditing Journal, 21*(5), 476-496.

Amran, A., and Devi, S. S. (2008). The impact of government and foreign affiliate influence on corporate social reporting: the case of Malaysia. *Managerial Auditing Journal, 23*(4), 386-404.

Amran, A., and Haniffa, R. (2011). Evidence in development of sustainability reporting: a case of a developing country. *Business Strategy and the Environment, 20*(3), 141-156.

Amran, A. B., and Devi, S. S. (2007). Corporate social reporting in Malaysia: an institutional perspective. *World Review of Entrepreneurship, Management and Sustainable Development, 3*(1), 20-36.

Andriof, J. (2002). *Unfolding stakeholder thinking: theory, responsibility and engagement* (Vol. 1): Greenleaf Publishing.

Ararat, M. (2006). Corporate social responsibility across middle east and north Africa. *Available at SSRN 1015925*.

Aras, G., Aybars, A., and Kutlu, O. (2010). Managing corporate performance: Investigating the relationship between corporate social responsibility and financial performance in emerging markets. *International Journal of Productivity and Performance Management, 59*(3), 229-254.

Arcay, M. R. B. o., and Vazquez, M. F. M. (2005). Corporate characteristics, governance rules and the extent of voluntary disclosure in Spain. *Advances in Accounting, 21*, 299-331.

Arrow, K. J. (1973). Social responsibility and economic efficiency. *Public Policy, 21*(3), 303-317.

Barako, D. G., Hancock, P., and Izan, H. Y. (2006a). Factors influencing voluntary corporate disclosure by Kenyan companies. *Corporate Governance: An International Review, 14*(2), 107-125.

Barako, D. G., Hancock, P., and Izan, H. Y. (2006b). Relationship between corporate governance attributes and voluntary disclosures in annual reports: The Kenyan experience. *Financial Reporting, Regulation and Governance, 5*(1), 1-26.

Basheikh, A. M. (2002). *Financial reporting in Saudi Arabia and bank lending decisions.* University of Portsmouth.

Baydoun, N., Maguire, W., Ryan, N., and Willett, R. (2012). Corporate governance in five Arabian Gulf countries. *Managerial Auditing Journal, 28*(1), 7-22.

Bayoud, N. S., Kavanagh, M., and Slaughter, G. (2012). Factors influencing levels of corporate social responsibility disclosure by Libyan firms: a mixed study. *International Journal of Economics and Finance, 4*(4), 13.

Beattie, V., McInnes, B., and Fearnley, S. (2004). *A methodology for analysing and evaluating narratives in annual reports: a comprehensive descriptive profile and metrics for disclosure quality attributes.* Paper presented at the Accounting forum.

Bebbington, J., Higgins, C., and Frame, B. (2009). Initiating sustainable development reporting: evidence from New Zealand. *Accounting, Auditing and Accountability Journal, 22*(4), 588-625.

Belal, A., and Owen, D. L. (2015). The rise and fall of stand-alone social reporting in a multinational subsidiary in Bangladesh: a case study. *Accounting, Auditing and Accountability Journal, 28*(7), 1160-1192.

Belal, A. R. (2001). A study of corporate social disclosures in Bangladesh. *Managerial Auditing Journal, 16*(5), 274-289.

Belal, A. R., and Momin, M. (2009). Corporate social reporting (CSR) in emerging economies: a review and future direction. *Research in accounting in emerging economies, 9*, 119-143.

Belal, A. R., and Owen, D. L. (2007). The views of corporate managers on the current state of, and future prospects for, social reporting in Bangladesh: An engagement-based study. *Accounting, Auditing and Accountability Journal, 20*(3), 472-494.

Belkaoui, A., and Karpik, P. G. (1989). Determinants of the corporate decision to disclose social information. *Accounting, Auditing and Accountability Journal, 2*(1).

Bhattacharyya, A. (2014). Factors Associated with the Social and Environmental Reporting of Australian Companies. *Australasian Accounting, Business and Finance Journal, 8*(1), 25-50.

Blowfield, M., and Murray, A. (2008). *Corporate responsibility: A critical introduction*: Oxford University Press.

Botosan, C. A. (1997). Disclosure level and the cost of equity capital. *Accounting review*, 323-349.

Branco, M. C., and Rodrigues, L. c. L. (2007). Issues in Corporate Social and Environmental Reporting Research: An Overview. *Issues in Social and Environmental Accounting, 1*(1).

Branco, M. C., and Rodrigues, L. L. (2007). Positioning stakeholder theory within the debate on corporate social responsibility. *Electronic Journal of Business Ethics and Organization Studies, 12*(1), 5-15.

Branco, M. C., and Rodrigues, L. L. (2008). Factors influencing social responsibility disclosure by Portuguese companies. *Journal of Business Ethics, 83*(4), 685-701.

Brown, N., and Deegan, C. (1998). The public disclosure of environmental performance informationâ€"a dual test of media agenda setting theory and legitimacy theory. *Accounting and Business Research, 29*(1), 21-41.

Bryman, A. (2013). *Doing research in organizations*: Routledge.

Bryman, A., and Bell, E. (2015). *Business research methods*: Oxford University Press, USA.

Bryman, A. a. B., E. (2003). *Business Research Methods*. Oxford: Oxford University Press Inc.

Cadbury, S. A. (2000). The corporate governance agenda. *Corporate Governance: An International Review, 8*(1), 7-15.

Camfferman, K., and Cooke, T. E. (2002). An analysis of disclosure in the annual reports of UK and Dutch companies. *Journal of International Accounting Research, 1*(1), 3-30.

Campbell, D., Moore, G., and Shrives, P. (2006). Cross-sectional effects in community disclosure. *Accounting, Auditing and Accountability Journal, 19*(1), 96-114.

Campbell, J. L. (2007). Why would corporations behave in socially responsible ways? An institutional theory of corporate social responsibility. *Academy of Management Review, 32*(3), 946-967.

Campopiano, G., and De Massis, A. (2014). Corporate social responsibility reporting: A content analysis in family and non-family firms. *Journal of business ethics, 129*(3), 511-534.

Carroll, A. B. (1999). Corporate social responsibility evolution of a definitional construct. *Business and society, 38*(3), 268-295.

Carroll, A. B., and Shabana, K. M. (2010). The business case for corporate social responsibility: a review of concepts, research and practice. *International Journal of Management Reviews, 12*(1), 85-105.

Chan, M. C., Watson, J., and Woodliff, D. (2014). Corporate governance quality and CSR disclosures. *Journal of business ethics, 125*(1), 59-73.

Chau, G., and Gray, S. J. (2010). Family ownership, board independence and voluntary disclosure: Evidence from Hong Kong. *Journal of International Accounting, Auditing and Taxation, 19*(2), 93-109.

Cheng, E. C. M., and Courtenay, S. M. (2006). Board composition, regulatory regime and voluntary disclosure. *The international journal of accounting, 41*(3), 262-289.

Chih, H.-L., Chih, H.-H., and Chen, T.-Y. (2010). On the determinants of corporate social responsibility: International evidence on the financial industry. *Journal of Business Ethics, 93*(1), 115-135.

Cho, C. H. (2009). Legitimation strategies used in response to environmental disaster: A French case study of Total SA's Erika and AZF incidents. *European Accounting Review, 18*(1), 33-62.

Cho, C. H., Freedman, M., and Patten, D. M. (2012). Corporate disclosure of environmental capital expenditures: A test of alternative theories. *Accounting, Auditing and Accountability Journal, 25*(3), 486-507.

Cho, C. H., and Patten, D. M. (2007). The role of environmental disclosures as tools of legitimacy: A research note. *Accounting, Organizations and Society, 32*(7), 639-647.

Cho, C. H., and Roberts, R. W. (2010). Environmental reporting on the internet by America's Toxic 100: Legitimacy and self-presentation. *International Journal of Accounting Information Systems, 11*(1), 1-16.

Cho, C. H., Roberts, R. W., and Patten, D. M. (2010). The language of US corporate environmental disclosure. *Accounting, Organizations and Society, 35*(4), 431-443.

Choi, J.-S. (1999). An investigation of the initial voluntary environmental disclosures made in Korean semi-annual financial reports. *Pacific Accounting Review, 11*(1).

Chow, C. W., and Wong-Boren, A. (1987). Voluntary financial disclosure by Mexican corporations. *Accounting Review*, 533-541.

Collis, J., and Hussey, R. (2009). Business Research. 3rd: New York: Palgrave.

Collis, J., and Hussey, R. (2013). *Business research: A practical guide for undergraduate and postgraduate students*: Palgrave macmillan.

Cormier, D., and Gordon, I. M. (2001). An examination of social and environmental reporting strategies. *Accounting, Auditing and Accountability Journal, 14*(5), 587-617.

Cormier, D., Magnan, M., and Van Velthoven, B. (2005). Environmental disclosure quality in large German companies: economic incentives, public pressures or institutional conditions? *European Accounting Review, 14*(1), 3-39.

CORPORATE GOVERNANCE REGULATIONS IN THE KINGDOM OF SAUDI ARABIA (2006).

Cowen, S. S., Ferreri, L. B., and Parker, L. D. (1987). The impact of corporate characteristics on social responsibility disclosure: A typology and frequency-based analysis. *Accounting, Organizations and society, 12*(2), 111-122.

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*: Sage publications.

Curwin, J., and Slater, R. (2007). *Quantitative methods for business decisions*: Cengage Learning EMEA.

Das, S., Dixon, R., and Michael, A. (2015). Corporate social responsibility reporting: a longitudinal study of listed banking companies in Bangladesh. *World review of business research., 5*(1), 130-154.

Daub, C.-H. (2007). Assessing the quality of sustainability reporting: an alternative methodological approach. *Journal of Cleaner Production, 15*(1), 75-85.

Davis, N., and Hayashi, C. (2007). The Gulf Cooperation Council (GCC) Countries and the World: Scenarios to 2025: Implications for Competitiveness. *MD Hanouz, S. El Diwany and T. Yousef, eds*, 129-141.

Deegan, C. (2002a). Introduction: the legitimising effect of social and environmental disclosures-a theoretical foundation. *Accounting, Auditing and Accountability Journal, 15*(3), 282-311.

Deegan, C. (2002b). Introduction: the legitimising effect of social and environmental disclosuresâ€"a theoretical foundation. *Accounting, Auditing and Accountability Journal, 15*(3), 282-311.

Deegan, C. (2006). Legitimacy theory. *Methodological issues in accounting research: theories and methods*, 161-182.

Deegan, C. (2014). 15 An overview of legitimacy theory as applied within the social and environmental accounting literature. *Sustainability accounting and accountability*, 248.

Deegan, C., and Unerman, J. (2011). *Financial accounting theory*. London: McGraw-Hill.

Deegan, C., and Gordon, B. (1996). A study of the environmental disclosure practices of Australian corporations. *Accounting and Business Research, 26*(3), 187-199.

Deegan, C., and Rankin, M. (1996). Do Australian companies report environmental news objectively? An analysis of environmental disclosures by firms prosecuted successfully by the Environmental Protection Authority. *Accounting, auditing and accountability journal, 9*(2), 50-67.

Deegan, C., and Rankin, M. (1996). Do Australian companies report environmental news objectively?: An analysis of environmental disclosures by firms prosecuted successfully by the Environmental Protection Authority. *Accounting, Auditing and Accountability Journal, 9*(2), 50-67.

Deegan, C., Rankin, M., and Tobin, J. (2002). An examination of the corporate social and environmental disclosures of BHP from 1983-1997: a test of legitimacy theory. *Accounting, Auditing and Accountability Journal, 15*(3), 312-343.

Deegan, C., Rankin, M., and Voght, P. (2000). *Firms' disclosure reactions to major social incidents: Australian evidence.* Paper presented at the Accounting Forum.

Deegan, C., and Unerman, J. (2006). *Financial accounting theory: European edition*: McGraw-Hill Maidenhead.

Depoers, F. (2000). A cost benefit study of voluntary disclosure: Some empirical evidence from French listed companies. *European Accounting Review, 9*(2), 245-263.

Dillard, J. F., Rigsby, J. T., and Goodman, C. (2004). The making and remaking of organization context: duality and the institutionalization process. *Accounting, Auditing and Accountability Journal, 17*(4), 506-542.

DiMaggio, P. J., and Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American sociological review*, 147-160.

Dowling, J., and Pfeffer, J. (1975). Organizational legitimacy: Social values and organizational behavior. *Pacific sociological review*, 122-136.

Driver, C., and Thompson, G. (2002). Corporate governance and democracy: The stakeholder debate revisited. *Journal of Management and Governance, 6*(2), 111-130.

Easterbrook, F. H. (1984). Two agency-cost explanations of dividends. *The American Economic Review, 74*(4), 650-659.

Easterby-Smith, M., Thorpe, R., Jackson, P., and Lowe, A. (2008). *Management research*: SAGE Publications Limited.

Elkharouf, F. W. (1985). Generally Accepted Accounting Principles in Saudi Arabia. *The Recent Accounting and Economic Development in the Middle East*, 127-150.

Elsbach, K. D., and Sutton, R. I. (1992). Acquiring organizational legitimacy through illegitimate actions: A marriage of institutional and impression management theories. *Academy of management Journal, 35*(4), 699-738.

Elzahar, H., and Hussainey, K. (2012). Determinants of narrative risk disclosures in UK interim reports. *The Journal of Risk Finance, 13*(2), 133-147.

Eng, L. L., and Mak, Y. T. (2003). Corporate governance and voluntary disclosure. *Journal of accounting and public policy, 22*(4), 325-345.

Esa, E., and Anum Mohd Ghazali, N. (2012). Corporate social responsibility and corporate governance in Malaysian government-linked companies. *Corporate Governance: The international journal of business in society, 12*(3), 292-305.

European Commission. (2001). Promoting a European Framework for Corporate Social Responsibility. *Green Paper, Luxembourg: Office for Official Publications of the European Communities*.

Fama, E. F., and Jensen, M. C. (1983). Agency problems and residual claims. *The journal of law and Economics, 26*(2), 327-349.

Filatotchev, I., and Boyd, B. K. (2009). Taking stock of corporate governance research while looking to the future. *Corporate Governance: An International Review, 17*(3), 257-265.

Freedman, M., and Jaggi, B. (1988). An analysis of the association between pollution disclosure and economic performance. *Accounting, Auditing and Accountability Journal, 1*(2), 43-58.

Freeman, R. E. (1984). Corporate Views of the Public Interest. *Academy of Management. The Academy of Management Review (pre-1986), 9*(000002), 366.

Friedman, A. L., and Miles, S. (2001). Socially responsible investment and corporate social and environmental reporting in the UK: an exploratory study. *The British Accounting Review, 33*(4), 523-548.

Friedman, M. (1962). Capital and freedom: Chicago: University of Chicago Press.

Gallego-A lvarez, I., and Quina-Custodio, I. A. (2016). Disclosure of corporate social responsibility information and explanatory factors. *Online Information Review, 40*(2), 218-238.

Gallhofer, S., Haslam, J., and Kamla, R. (2011). The accountancy profession and the ambiguities of globalisation in a post-colonial, Middle Eastern and Islamic context: Perceptions of accountants in Syria. *Critical Perspectives on Accounting, 22*(4), 376-395.

Garriga, E., and Mele, D. (2004). Corporate social responsibility theories: mapping the territory. *Journal of Business Ethics, 53*(1), 51-71.

GAZT. (2015). General Authority of Zakat and Tax. from https://dzit.gov.sa/

Ghazali, N. A. (2007). Ownership structure and corporate social responsibility disclosure: some Malaysian evidence. *Corporate Governance: The international journal of business in society, 7*(3), 251-266.

Ghazali, N. A. M., and Weetman, P. (2006). Perpetuating traditional influences: Voluntary disclosure in Malaysia following the economic crisis. *Journal of International Accounting, Auditing and Taxation, 15*(2), 226-248.

Giannarakis, G., Galani, D., Georgia, C., and Litinas, N. (2014). The weight of Corporate Social Responsibility indicators in measurement procedure. *A/A, 1*, 64.

Gray, R. (1992). Accounting and environmentalism: an exploration of the challenge of gently accounting for accountability, transparency and sustainability. *Accounting, Organizations and Society, 17*(5), 399-425.

Gray, R. (2002). The social accounting project and< i> Accounting Organizations and Society</i> Privileging engagement, imaginings, new accountings and pragmatism over critique? *Accounting, Organizations and Society, 27*(7), 687-708.

Gray, R., and Bebbington, J. (2000). ENVIRONMENTAL ACCOUNTING, MANAGERIALISM AND SUSTAINABILITY: IS THE PLANET SAFE IN THE HANDS OF BUSINESS AND ACCOUNTING?

Gray, R., Javad, M., Power, D. M., and Sinclair, C. D. (2001). Social and environmental disclosure and corporate characteristics: a research note and extension. *Journal of Business Finance and Accounting, 28*(3â€ 4), 327-356.

Gray, R., Kouhy, R., and Lavers, S. (1995). Constructing a research database of social and environmental reporting by UK companies. *Accounting, Auditing and Accountability Journal, 8*(2), 78-101.

Gray, R., Kouhy, R., and Lavers, S. (1995). Corporate social and environmental reporting: a review of the literature and a longitudinal study of UK disclosure. *Accounting, Auditing and Accountability Journal, 8*(2), 47-77.

Gray, R., Laughlin, R., and Bebbington, J. (1996). *Financial accounting: method and meaning*: International Thomson Business Press.

Gray, R., and Morrison, S. (1992). The physical environment, accounting and local development. *Local Economy, 6*(4), 336-350.

Gray, R., Owen, D., and Adams, C. (1996a). *Accounting and accountability: changes and challenges in corporate social and environmental reporting*: Prentice Hall.

Gray, R., Owen, D., and Adams, C. (1996b). *Accounting and accountability : changes and challenges in corporate social and environmental reporting*. London [etc.]: Prentice Hall.

Gray, R., Owen, D., and Maunders, K. (1987a). *Corporate social reporting: Accounting and accountability*: Prentice-Hall International.

Gray, R., Owen, D., and Maunders, K. (1988). Corporate social reporting: emerging trends in accountability and the social contract. *Accounting, Auditing and Accountability Journal, 1*(1), 6-20.

Gray, R., Owen, D., and Maunders, K. T. (1987b). *Corporate social reporting : accounting and accountability*. Englewood Cliffs; London: Prentice-Hall International.

Gray, R., Owen, D. L., and Adams, C. (1996c). *Accounting and Accountability: Social and environmental accounting in a changing world*: Prentice Hall, Hemel Hempstead.

Gul, F. A., and Leung, S. (2004). Board leadership, outside directorsâ€™ expertise and voluntary corporate disclosures. *Journal of Accounting and public Policy, 23*(5), 351-379.

Guthrie, J. (1983). *Corporate social accounting and reporting: an Australian empirical study*.

Guthrie, J., and English, L. (1997). Guarding the Independence of the Victorian Auditorâ€ General and the Public Interest. *Australian Accounting Review, 7*(13), 12-15.

Guthrie, J., and Parker, L. D. (1989). Corporate social reporting: a rebuttal of legitimacy theory. *Accounting and business research, 19*(76), 343-352.

Guthrie, J., and Parker, L. D. (1990). Corporate social disclosure practice: a comparative international analysis. *Advances in Public Interest Accounting, 3*(2), 159-176.

Habbash, M. (2015). CORPORATE GOVERNANCE AND CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE: EVIDENCE FROM SAUDI ARABIA. *Economic and Social Development: Book of Proceedings*, 267.

Hackston, D., and Milne, M. J. (1996). Some determinants of social and environmental disclosures in New Zealand companies. *Accounting, Auditing and Accountability Journal, 9*(1), 77-108.

Haniffa, R., and Hudaib, M. (2006). Corporate governance structure and performance of Malaysian listed companies. *Journal of Business Finance and Accounting, 33*(7â€ 8), 1034-1062.

Haniffa, R. M., and Cooke, T. E. (2002). Culture, corporate governance and disclosure in Malaysian corporations. *Abacus, 38*(3), 317-349.

Haniffa, R. M., and Cooke, T. E. (2005). The impact of culture and governance on corporate social reporting. *Journal of accounting and public policy, 24*(5), 391-430.

Hassan, A., and Kouhy, R. (2014). Time-series cross-sectional environmental performance and disclosure relationship: specific evidence from a less-developed country. *International Journal of Accounting and Economics Studies, 2*(2), 60-73.

Hassan, O. A. G., and Marston, C. (2010). Disclosure measurement in the empirical accounting literature-a review article. *Available at SSRN 1640598*.

Hasseldine, J., Salama, A. I., and Toms, J. S. (2005). Quantity versus quality: the impact of environmental disclosures on the reputations of UK Plcs. *The British Accounting Review, 37*(2), 231-248.

Hogner, R. H. (1982). Corporate social reporting: eight decades of development at US Steel. *Research in Corporate Performance and Policy, 4*, (8, 243-250).

Holder-Webb, L., Cohen, J. R., Nath, L., and Wood, D. (2009). The supply of corporate social responsibility disclosures among US firms. *Journal of business ethics, 84*(4), 497-527.

Holland, L., and Foo, Y. B. (2003). Differences in environmental reporting practices in the UK and the US: the legal and regulatory context. *The British Accounting Review, 35*(1), 1-18.

Hooghiemstra, R. (2000). *Corporate communication and impression managementâ€"New perspectives why companies engage in corporate social reporting*: Springer.

Hopwood, A. G. (2009). Accounting and the environment. *Accounting, Organizations and Society, 34*(3), 433-439.

Hoque, Z. (2006). *Methodological issues in accounting research: theories, methods and issues*: Spiramus Press Ltd.

Hossain, M., and Hammami, H. (2009). Voluntary disclosure in the annual reports of an emerging country: The case of Qatar.

Huafang, X., and Jianguo, Y. (2007). Ownership structure, board composition and corporate voluntary disclosure: Evidence from listed companies in China. *Managerial Auditing Journal, 22*(6), 604-619.

Huang, C.-L., and Kung, F.-H. (2010). Drivers of environmental disclosure and stakeholder expectation: Evidence from Taiwan. *Journal of business ethics, 96*(3), 435-451.

Hughes, S. B., Anderson, A. and Golden, S. . (2001). Corporate envirnomental diaclosure: are they useful in determaining envirnomental performance. *Journal of accounting and public policy, 20*, 23.

Hussainey, K., and Al-Nodel, A. (2008). Corporate governance online reporting by Saudi listed companies. *Research in Accounting in Emerging Economies, 8*, 39-64.

Hussainey, K., Elsayed, M., and Razik, M. A. (2011). Factors affecting corporate social responsibility disclosure in Egypt. *Corporate Ownership and Control journal*.

Idowu, S. O., and Towler, B. A. (2004). A comparative study of the contents of corporate social responsibility reports of UK companies. *Management of Environmental Quality: an international journal, 15*(4), 420-437.

Imam, S. (2000). Corporate social performance reporting in Bangladesh. *Managerial Auditing Journal, 15*(3), 133-142.

Islam, M. A., and Deegan, C. (2007). Motivations for organisations within developing countries to report social responsibility information: a case study from Bangladesh.

Islam, M. A., and Deegan, C. (2008). Motivations for an organisation within a developing country to report social responsibility information: evidence from Bangladesh. *Accounting, Auditing and Accountability Journal, 21*(6), 850-874.

Jamali, D., and Neville, B. (2011). Convergence versus divergence of CSR in developing countries: An embedded multi-layered institutional lens. *Journal of business ethics, 102*(4), 599-621.

Jamali, D., Safieddine, A. M., and Rabbath, M. (2008). Corporate governance and corporate social responsibility synergies and interrelationships. *Corporate Governance: An International Review, 16*(5), 443-459.

Jennifer Ho, L. C., and Taylor, M. E. (2007). An empirical analysis of triple bottomâ€ line reporting and its determinants: evidence from the United States and Japan. *Journal of International Financial Management and Accounting, 18*(2), 123-150.

Jensen, M. C. (2002). Value maximization, stakeholder theory, and the corporate objective function. *Business ethics quarterly, 12*(02), 235-256.

Jensen, M. C., and Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics, 3*(4), 305-360.

Jo, H., and Harjoto, M. A. (2012). The causal effect of corporate governance on corporate social responsibility. *Journal of business ethics, 106*(1), 53-72.

Johl, S., Subramaniam, N., and Zain, M. M. (2012). Audit committee and CEO ethnicity and audit fees: some Malaysian evidence. *The International Journal of Accounting, 47*(3), 302-332.

Johnson, R. B., Onwuegbuzie, A. J., and Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of mixed methods research, 1*(2), 112-133.

Joshi, P. L., and Al-Modhahki, J. (2003). Financial reporting on the internet: Empirical evidence from Bahrain and Kuwait. *Asian Review of Accounting, 11*(1), 88-101.

Kamal, Y., and Deegan, C. (2013). Corporate Social and Environment - related Governance Disclosure Practices in the Textile and Garment Industry: Evidence from a Developing Country. *Australian Accounting Review, 23*(2), 117-134.

Kamla, R. (2007). Critically Appreciating Social Accounting and Reporting in the Arab MiddleEast: A Postcolonial Perspective. *Advances in International Accounting, 20*, 105-177.

Kamla, R. (2009). Critical insights into contemporary Islamic accounting. *Critical perspectives on accounting, 20*(8), 921-932.

Kansal, M., Joshi, M., and Batra, G. S. (2014). Determinants of corporate social responsibility disclosures: Evidence from India. *Advances in Accounting, 30*(1), 217-229.

Karim, K., Suh, S., Carter, C., and Zhang, M. (2015). Corporate Social Responsibility: Evidence from the United Kingdom. *Journal of International Business Research, 14*(1), 85.

Khan, A., Muttakin, M. B., and Siddiqui, J. (2012). Corporate governance and corporate social responsibility disclosures: Evidence from an emerging economy. *Journal of business ethics, 114*(2), 207-223.

Khan, A., Muttakin, M. B., and Siddiqui, J. (2013). Corporate governance and corporate social responsibility disclosures: Evidence from an emerging economy. *Journal of business ethics, 114*(2), 207-223.

Khan, H.-U.-Z. (2010). The effect of corporate governance elements on corporate social responsibility (CSR) reporting: Empirical evidence from private commercial banks of Bangladesh. *International Journal of Law and Management, 52*(2), 82-109.

Khasharmeh, H. A., and Desoky, A. M. (2013). On-line corporate social responsibility disclosures: the case of the Gulf cooperation council (GCC) countries. *Global Review of Accounting and Finance, 4*(2), 39-64.

KiliÃ§, M., Kuzey, C., and Uyar, A. (2015). The impact of ownership and board structure on Corporate Social Responsibility (CSR) reporting in the Turkish banking industry. *Corporate Governance, 15*(3), 357-374.

Koenig-Archibugi, M. (2004). Transnational corporations and public accountability. *Government and Opposition, 39*(2), 234-259.

Konijn, S. J. J., KrÃ¤ussl, R., and Lucas, A. (2011). Blockholder dispersion and firm value. *Journal of Corporate Finance, 17*(5), 1330-1339.

Krippendorff, K. (2004). *Content analysis: An introduction to its methodology*: Sage Publications, Inc.

Kuo, Y. P., and Hung, J. H. (2012). Family Control and Investmentâ€ Cash Flow Sensitivity: Moderating Effects of Excess Control Rights and Board Independence. *Corporate Governance: An International Review, 20*(3), 253-266.

Lamberg, J. A., Savage, G. T., and Pajunen, K. (2003). Strategic stakeholder perspective to ESOP negotiations: The case of United Airlines. *Management Decision, 41*(4), 383-393.

Lang, M., & Lundholm, R. (1993). Cross-sectional determinants of analyst ratings of corporate disclosures. Journal of accounting research, 246-271.

Leftwich, R. W., Watts, R. L., and Zimmerman, J. L. (1981). Voluntary corporate disclosure: The case of interim reporting. *Journal of accounting research*, 50-77.

Li, J., Pike, R., and Haniffa, R. (2008). Intellectual capital disclosure and corporate governance structure in UK firms. *Accounting and Business Research, 38*(2), 137-159.

Li, Q., Luo, W., Wang, Y., and Wu, L. (2013). Firm performance, corporate ownership, and corporate social responsibility disclosure in China. *Business Ethics: A European Review, 22*(2), 159-173.

Li, W., and Zhang, R. (2010). Corporate social responsibility, ownership structure, and political interference: Evidence from China. *Journal of business ethics, 96*(4), 631-645.

Lindblom, C. K. (1993). *The implications of organizational legitimacy for corporate social performance and disclosure.* Paper presented at the Critical perspectives on accounting conference, New York.

Liu, X., and Anbumozhi, V. (2009). Determinant factors of corporate environmental information disclosure: an empirical study of Chinese listed companies. *Journal of Cleaner Production, 17*(6), 593-600.

Macarulla, F. L., and Talalweh, M. A. (2012). Voluntary corporate social responsibility disclosure: A case study of Saudi Arabia. *Jordan Journal of Business Administration, 8*(4).

Malone, D., Fries, C., and Jones, T. (1993). An empirical investigation of the extent of corporate financial disclosure in the oil and gas industry. *Journal of Accounting, Auditing and Finance, 8*(3), 249-273.

Mandurah, S., Khatib, J., and Al-Sabaan, S. (2012). Corporate social responsibility among Saudi Arabian firms: An empirical investigation. *Journal of Applied Business Research (JABR), 28*(5), 1049-1058.

Marquis, C., Glynn, M. A., and Davis, G. F. (2007). Community isomorphism and corporate social action. *Academy of management review, 32*(3), 925-945.

Mathews, M. R. (1993). *Socially responsible accounting*: CRC Press.

Mathews, M. R. (1995). Social and environmental accounting: A practical demonstration of ethical concern? *Journal of business ethics, 14*(8), 663-671.

Matten, D., and Moon, J. (2008). â€œImplicitâ€ and â€œexplicitâ€ CSR: a conceptual framework for a comparative understanding of corporate social responsibility. *Academy of management Review, 33*(2), 404-424.

McConnell, J. J., and Servaes, H. (1990). Additional evidence on equity ownership and corporate value. *Journal of Financial economics, 27*(2), 595-612.

McGuire, J. B., Sundgren, A., and Schneeweis, T. (1988). Corporate social responsibility and firm financial performance. *Academy of Management Journal*, 854-872.

McMurtrie, T. (2005). Factors influencing the publication of social performance information: an Australian case study. *Corporate Social Responsibility and Environmental Management, 12*(3), 129-143.

McWilliams, A., and Siegel, D. (2000). Corporate social responsibility and financial performance: correlation or misspecification? *Strategic management journal, 21*(5), 603-609.

McWilliams, A., Siegel, D. S., and Wright, P. M. (2006). Corporate social responsibility: Strategic implications*. *Journal of Management Studies, 43*(1), 1-18.

Menassa, E. (2010). Corporate social responsibility: an exploratory study of the quality and extent of social disclosures by Lebanese commercial banks. *Journal of Applied Accounting Research, 11*(1), 4-23.

Michelon, G., and Parbonetti, A. (2012). The effect of corporate governance on sustainability disclosure. *Journal of Management and Governance, 16*(3), 477-509.

Michelon, G., and Parbonetti, A. (2014). The effect of corporate governance on sustainability disclosure. *Journal of Management and Governance, 16*(3), 477-509.

Milne, M. J., and Adler, R. W. (1999). Exploring the reliability of social and environmental disclosures content analysis. *Accounting, Auditing and Accountability Journal, 12*(2), 237-256.

Milne, M. J., and Patten, D. M. (2002). Securing organizational legitimacy: an experimental decision case examining the impact of environmental disclosures. *Accounting, Auditing and Accountability Journal, 15*(3), 372-405.

Minnee, F., Shanka, T., Taylor, R., and Handley, B. (2012). Exploring corporate responsibility in Oman-social expectations and practice. *Social Responsibility Journal, 9*(2), 326-339.

Mitchell, R. K., Agle, B. R., and Wood, D. J. (1997). Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts. *Academy of management review, 22*(4), 853-886.

Morris, R. D. (1987). Signalling, agency theory and accounting policy choice. *Accounting and business Research, 18*(69), 47-56.

Murray, A. (2010). *Do markets value companies social and environmental activity? An inquiry into associations among social disclosure, social performance and financial performance.* PhD thesis, Business and Social Sciences University of Glasgow, Department of Accounting and Finance, Scotland.

Muthuri, J. N., and Gilbert, V. (2011). An institutional analysis of corporate social responsibility in Kenya. *Journal of business ethics, 98*(3), 467-483.

Muttakin, M. B., and Khan, A. (2014). Determinants of corporate social disclosure: empirical evidence from Bangladesh. *Advances in Accounting, 30*(1), 168-175.

Naser, K., Al-Hussaini, A., Al-Kwari, D., and Nuseibeh, R. (2006). Determinants of corporate social disclosure in developing countries: the case of Qatar. *Advances in International Accounting, 19*(6), 1-23.

Naser, K., Al-Khatib, K., and Karbhari, Y. (2002). Empirical evidence on the depth of corporate information disclosure in developing countries: The case of Jordan. *International journal of commerce and management, 12*(3/4), 122-155.

Naser, K., and Nuseibeh, R. (2003). Quality of financial reporting: evidence from the listed Saudi nonfinancial companies. *The International Journal of Accounting, 38*(1), 41-69.

Neu, D., Warsame, H., and Pedwell, K. (1998). Managing public impressions: environmental disclosures in annual reports. *Accounting, organizations and society, 23*(3), 265-282.

Ng, L. W. (1985). *Social responsibility disclosures of selected New Zealand companies for 1981, 1982 and 1983*: Faculty of Business, Massey University.

Ntim, C. G., Lindop, S., and Thomas, D. A. (2013). Corporate governance and risk reporting in South Africa: A study of corporate risk disclosures in the pre-and post-2007/2008 global financial crisis periods. *International Review of Financial Analysis, 30*, 363-383.

Ntim, C. G., and Soobaroyen, T. (2012). Corporate governance and performance in socially responsible corporations in South Africa: new empirical insights from a multi-theoretical perspective.

Ntim, C. G., and Soobaroyen, T. (2013). Corporate governance and performance in socially responsible corporations: New empirical insights from a Neo‐Institutional framework. *Corporate Governance: An International Review, 21*(5), 468-494.

O'Donovan, G. (1999). Managing legitimacy through increased corporate environmental reporting: an exploratory study. *Interdisciplinary Environmental Review, 1*(1), 63-99.

O'Donovan, G. (2002). Environmental disclosures in the annual report: Extending the applicability and predictive power of legitimacy theory. *Accounting, Auditing and Accountability Journal, 15*(3), 344-371.

O'Dwyer, B. (2002). Managerial perceptions of corporate social disclosure: An Irish story. *Accounting, Auditing and Accountability Journal, 15*(3), 406-436.

O'Dwyer, B. (2005a). Book review: Unshackling accountants, the Institute of Economic Affairs (IEA). *International journal of accounting education and research*(4), 428-432.

O'Dwyer, B. (2005b). The construction of a social account: a case study in an overseas aid agency. *Accounting, Organizations and Society, 30*(3), 279-296.

Ortas, E., Gallego Alvarez, I., and Alvarez Etxeberria, I. (2014). Financial factors influencing the quality of corporate social responsibility and environmental management disclosure: A quantile regression approach. *Corporate Social Responsibility and Environmental Management*.

Owen, D. L., Swift, T., and Hunt, K. (2001). Questioning the role of stakeholder engagement in social and ethical accounting, auditing and reporting. *Accounting Forum, 25*(3), 264-282.

Parker, L. D. (2005). Social and environmental accountability research: A view from the commentary box. *Accounting, Auditing and Accountability Journal, 18*(6), 842-860.

Parker, L. D. (2011). *Twenty-one years of social and environmental accountability research: A coming of age.* Paper presented at the Accounting Forum.

Patten, D. M. (1992). Exposure, legitimacy, and social disclosure. *Journal of accounting and public policy, 10*(4), 297-308.

Patten, D. M. (2002a). Media exposure, public policy pressure, and environmental disclosure: an examination of the impact of tri data availability. *Accounting Forum, 26*(2), 152-171.

Patten, D. M. (2002b). The relation between environmental performance and environmental disclosure: a research note. *Accounting, Organizations and Society, 27*(8), 763-773.

Paul, C. J. M., and Siegel, D. S. (2006). Corporate social responsibility and economic performance. *Journal of Productivity Analysis, 26*(3), 207-211.

Perrin, T. (2008). Closing the engagement gap: a road map for driving superior business performance, Towers Perrin global workforce study 2007â€"2008. White paper, Towers Perrin. *Talent on Demand: Managing Talent in an Age of Uncertainty*.

Porter, M. E., and Kramer, M. R. (2006). The link between competitive advantage and corporate social responsibility. *Harvard business review, 84*(12), 78-92.

Power, M. (1994). *The audit explosion*: Demos.

Pratten, J. D., and Abdulhamid Mashat, A. (2009). Corporate social disclosure in Libya. *Social Responsibility Journal, 5*(3), 311-327.

Preciado, L. V. (2009). *Sustainable Finance and Ethical/Corporate Social Responsibility*

The new paradigm: Generali Insurance Company case of study Unpublished PhD, University of Trieste, los Andes.

Raffournier, B. (1995). The determinants of voluntary financial disclosure by Swiss listed companies. *European Accounting Review, 4*(2), 261-280.

Rahman, N., and Post, C. (2012). Measurement issues in environmental corporate social responsibility (ECSR): Toward a transparent, reliable, and construct valid instrument. *Journal of business ethics, 105*(3), 307-319.

Ratanajongkol, S., Davey, H., and Low, M. (2006). Corporate social reporting in Thailand: The news is all good and increasing. *Qualitative Research in Accounting and Management, 3*(1), 67-83.

Re, F. R. E. R., and Reed, D. L. (1983). Stockholders and Stakeholders: A New Perspective in Corporate Governance. *California Management Review, 25*, 88-106.

Rettab, B., Brik, A. B., and Mellahi, K. (2009). A study of management perceptions of the impact of corporate social responsibility on organisational performance in emerging economies: the case of Dubai. *Journal of business ethics, 89*(3), 371-390.

Reverte, C. (2009). Determinants of corporate social responsibility disclosure ratings by Spanish listed firms. *Journal of Business Ethics, 88*(2), 351-366.

Roberts, J. (2009). No one is perfect: The limits of transparency and an ethic for â€˜intelligentâ€™accountability. *Accounting, Organizations and Society, 34*(8), 957-970.

Roberts, J., McNulty, T., and Stiles, P. (2005). Beyond agency conceptions of the work of the nonâ€ executive director: Creating accountability in the boardroom. *British Journal of Management, 16*(s1), S5-S26.

Roberts, R. W. (1992). Determinants of corporate social responsibility disclosure: an application of stakeholder theory. *Accounting, Organizations and Society, 17*(6), 595-612.

Robertson, C. J., Diyab, A. A., and Al-Kahtani, A. (2013). A cross-national analysis of perceptions of corporate governance principles. *International Business Review, 22*(1), 315-325.

Rozeff, M. S. (1982). Growth, beta and agency costs as determinants of dividend payout ratios. *Journal of financial Research, 5*(3), 249-259.

Ruf, B. M., Muralidhar, K., Brown, R. M., Janney, J. J., and Paul, K. (2001). An empirical investigation of the relationship between change in corporate social performance and financial performance: a stakeholder theory perspective. *Journal of Business Ethics, 32*(2), 143-156.

Said, R., Hj Zainuddin, Y., and Haron, H. (2009). The relationship between corporate social responsibility disclosure and corporate governance characteristics in Malaysian public listed companies. *Social Responsibility Journal, 5*(2), 212-226.

Samaha, K., Dahawy, K., Hussainey, K., and Stapleton, P. (2012). The extent of corporate governance disclosure and its determinants in a developing market: The case of Egypt. *Advances in Accounting, 28*(1), 168-178.

Samkin, G., and Schneider, A. (2010). Accountability, narrative reporting and legitimation: the case of a New Zealand public benefit entity. *Accounting, Auditing and Accountability Journal, 23*(2), 256-289.

Sarkar, R. (2008). Public policy and corporate environmental behaviour: A broader view. *Corporate Social Responsibility and Environmental Management, 15*(5), 281-297.

Saudiembassy. (2017). from www.saudiembassy.net

Saunders, M., Lewis, P., and Thornhill, A. (2009). Research Methods forBusiness Students: Edinburgh: Pearson Education Limited.

Scapens, R. W. (2006). Understanding management accounting practices: A personal journey. *The British Accounting Review, 38*(1), 1-30.

Schipper, K. (1981). Discussion of voluntary corporate disclosure: The case of interim reporting. *Journal of Accounting Research*, 85-88.

Scott, W. R. (1995). *Institutions and organizations* (Vol. 2): Sage Thousand Oaks, CA.

Sekaran, U., and Bougie, R. (2011). Research method for business: A skill building approach: Taylor and Francis.

Shocker, A. D., and Sethi, S. P. (1973). An approach to incorporating societal preferences in developing corporate action strategies. *California Management Review, 15*(4), 97-105.

Shoult, A. (2006). *Doing Business with Saudi Arabia*: GMB Publishing Ltd.

Singh, D. R., and Ahuja, J. M. (1983). Corporate social reporting in India. *International Journal of Accounting, 18*(2), 151-169.

Skouloudis, A., Evangelinos, K., and Kourmousis, F. (2013). Assessing non-financial reports according to the Global Reporting Initiative guidelines: evidence from Greece. *Journal of Cleaner Production, 18*(5), 426-438.

Sobhani, F. A., Amran, A., and Zainuddin, Y. (2009). Revisiting the practices of corporate social and environmental disclosure in Bangladesh. *Corporate Social Responsibility and Environmental Management, 16*(3), 167-183.

Solomon, J. M. (2010). New Governance, Preemptive Self-Regulation, and the Blurring of Boundaries in Regulatory Theory and Practice. *Wisconsin Law Review*, 591.

Sturm, M., Strasky, J., Adolf, P., and Peschel, D. (2008). The Gulf Cooperation Council Countries-Economic Structures, Recent Developments and Role in the Global Economy. *ECB Occasional Paper*(92).

Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review, 20*(3), 571-610.

Sun, N., Salama, A., Hussainey, K., and Habbash, M. (2010). Corporate environmental disclosure, corporate governance and earnings management. *Managerial Auditing Journal, 25*(7), 679-700.

Sweeney, L. (2009). *A Study of Current Practice of Corporate Social Responsibility (CSR) and an Examination of the Relationship Between CSR and Financial Performance Using Structural Equation Modelling*

(SEM). Dublin Institutes of Technology

Tagesson, T. r., Blank, V., Broberg, P., and Collin, S. O. (2009). What explains the extent and content of social and environmental disclosures on corporate websites: a study of social and environmental reporting in Swedish listed corporations. *Corporate Social Responsibility and Environmental Management, 16*(6), 352-364.

Tilling, M. V., and Tilt, C. A. (2010). The edge of legitimacy: Voluntary social and environmental reporting in Rothmans' 1956-1999 annual reports. *Accounting, Auditing and Accountability Journal, 23*(1), 55-81.

Tilt, C. A. (1994). The influence of external pressure groups on corporate social disclosure: some empirical evidence. *Accounting, Auditing and Accountability Journal, 7*(4), 47-72.

Turner, G., Vourvachis, P., and Woodward, T. r. s. (2006). Heading towards sustainability reporting: A pilot study into the progress of embracing the global reporting initiative in the United Kingdom. *Journal of Applied Accounting Research, 8*(2), 41-70.

Udayasankar, K. (2008). Corporate social responsibility and firm size. *Journal of business ethics, 83*(2), 167-175.

Ullmann, A. A. (1985). Data in search of a theory: A critical examination of the relationships among social performance, social disclosure, and economic performance of US firms. *Academy of Management Review*, 540-557.

Unerman, J. (2000). Methodological issues-Reflections on quantification in corporate social reporting content analysis. *Accounting, Auditing and Accountability Journal, 13*(5), 667-681.

Unerman, J., and Bennett, M. (2004). Increased stakeholder dialogue and the internet: towards greater corporate accountability or reinforcing capitalist hegemony? *Accounting, Organizations and Society, 29*(7), 685-707.

van Staden, C. J., and Hooks, J. (2007). A comprehensive comparison of corporate environmental reporting and responsiveness. *The British Accounting Review, 39*(3), 197-210.

Veronica Siregar, S., and Bachtiar, Y. (2010). Corporate social reporting: empirical evidence from Indonesia Stock Exchange. *International Journal of Islamic and Middle Eastern Finance and Management, 3*(3), 241-252.

Villalonga, B., and Amit, R. (2006). How do family ownership, control and management affect firm value? *Journal of financial Economics, 80*(2), 385-417.

Vourvachis, P., and Woodward, T. (2015). Content analysis in social and environmental reporting research: trends and challenges. Journal of Applied Accounting Research, 16(2), 166-195.

Waddock, S. A., Bodwell, C., and Graves, S. B. (2002). Responsibility: The new business imperative. *The Academy of Management Executive, 16*(2), 132-148.

Waddock, S. A., and Graves, S. B. (1997). The corporate social performance. *Strategic management journal, 8*(4), 303-319.

Wallace, R. S. O., and Naser, K. (1996). Firm-specific determinants of the comprehensiveness of mandatory disclosure in the corporate annual reports of firms listed on the stock exchange of Hong Kong. *Journal of Accounting and Public policy, 14*(4), 311-368.

Walliman, N. (2005). *Social Research Methods: The Essentials*: Sage.

Walsh, J. P., Weber, K., and Margolis, J. D. (2003). Social issues and management: Our lost cause found. *Journal of Management, 29*(6), 859-881.

Wanderley, L. S. O., Lucian, R., Farache, F., and de Sousa Filho, J. M. (2008). CSR information disclosure on the web: a context-based approach analysing the influence of country of origin and industry sector. *Journal of business ethics, 82*(2), 369-378.

Wang, H., and Qian, C. (2011). Corporate philanthropy and corporate financial performance: The roles of stakeholder response and political access. *Academy of Management Journal, 54*(6), 1159-1181.

Watts, R. L., and Zimmerman, J. L. (1986). Positive accounting theory.

Williams, S. M. (1999). Voluntary environmental and social accounting disclosure practices in the Asia-Pacific region: An international empirical test of political economy theory. *The International Journal of Accounting, 34*(2), 209-238.

Wilmshurst, T. D., and Frost, G. R. (2000). Corporate environmental reporting: a test of legitimacy theory. *Accounting, Auditing and Accountability Journal, 13*(1), 10-26.

Zhao, N. (2011). *An Invistigation of Social and Environental Reporting Practices In Chinese context.* Royal Holloway London.

Appendices:

Appendix 1: literature table

		factors	Methodology	Finding
1	Giannarakis and Konteos (2014)	Environmental and Governance CEO duality, Women in board, greenhouse gas emission, leverage, Industry	Bloomberg, least square Dummy variable model, 100 companies 2009 -2012	Leverage is not statistically significant, CEO duality insignificant
2	Esa and Ghazali 2012	Leverage Board size Independent directors Company size Profitability	▪ 27 companies for two years (2005 and 2007) ▪ Content analysis annual reports. ▪ Multiple regression analysis was performed to identify factors influencing CSR disclosure	Leverage, board size, Independent directors Significant
3	Branco and Rodrigues 2008	Company size Industry affiliation Consumer proximity Environmental sensitivity Media exposure Control variables (Profitability, Leverage,	• Multiple linear regression models to analyse the relationship between total SRD and each one of its categories, both in annual reports and on the Internet, and the influencing factors referred to in the previous section. • Ten models are examined • 57 listed companies in 2003	Leverage, size, media exposure significant
4	Al Saeed 2006 Saudi Arabia	Firm size. Debt ratio Ownership dispersion Firm age Profit margin industry type Audit firm size	• One year because disclosure policies usually tend to remain constant over time (Botosan, 1997). • The annual reports of year 2003 were chosen because they are relatively more recent and easier to obtain. • 56 firms spanning six industries • Unranked OLS approach	Only firm size significant
5	Reverte 2009 Spanish companies	Leverage, Industry, media, exposure, Firm size	▪ Legitimacy, stakeholder, agency theories. ▪ Non-financial firms 2005 and 2006. ▪ 46 Observations	▪ Leverage and profitability insignificant ▪ Firm size, media and Industries sensitivity Significant

			▪ Linear regression model	
6	Siregar and Bachtair (2008)	board size, foreign ownership, firm size, profitability, and leverage	• Annual reports were analysed by content analysis method • multiple regression	• board size has a positive and non-linear (quadratic and concave) relationship with CSR reporting • Firm size has a positive effect on CSR reporting.
7	Jennifer Ho and Taylor 2007	Firm size Profitability Liquidity Leverage Industry country	• 50 of the largest US and Japanese companies • Annual reports, stand-alone reports, and special website reports. • Regression analysis	Firm size positive Profitability, liquidity negative firms with membership in the manufacturing industry positive higher for Japanese firms
8	Said et al 2009 Malaysia	CEO duality, Board size, Independent directors, Firm size, Profitability, leverage and CSRD	27 companies 2005 – 2007 content analysis, multiple regression analysis (Bloomberg database)	CEO duality insignificant, Board size positively significant. Leverage and Independence are significant. Firm size and Profitability are not significant
9	Michelon and Parbonetti 2012	independent directors CEO duality Control variables (Corporate size, profitability, leverage, risk, age, listing status, reputation, country and industry)	• 57 Dow Jones Sustainability Index (DJSI) companies and of a control group of companies matched on country, industry and size belonging to the Dow Jones Global Index (World1) for year 2003 • OLS • Multivariate analysis • Robustness analysis	CEO Dual insignificant Independent directors insignificant
10	Cheng and Courtenary 2006	CEO Duality		CEO duality insignificant
11	Roberts et al 2005	CEO Duality		CEO Duality significant
12	Gul and Leung 2004	CEO Duality Board independent		CEO Duality significant negative Board independent insignificant
13	Huafang and Jianguo 2007	CEO Duality		CEO Duality significant
14	Eng and Mak 2003	Independent		Independent significant

		CEO duality Directors ownership		CEO duality negative association Directors ownership significant negative
15	Barako et al 2006	Independent		Independent significant
16	Naser et al 2002	Leverage		Leverage Significant
17	Abdul Hamid 2004	Firm size		Firm size not significant
18	Khan et al 2012 Bangladesh	Corporate governance and CSRD Main ownership, Public ownership, Foreign ownership, Board Independence, CEO duality, Audit committee	▪ Annual reports ▪ Legitimacy theory ▪ Regression analysis	▪ Main ownership negatively significant ▪ Public, foreign ownership, Independence, audit committee positively significant. ▪ CEO not significant
19	Ghazali 2007	Main ownership Firm size Directors ownership Government ownership Profitability industry	• 87 listed companies in 2001 • Checklist containing 22	directors ownership negative significant firm size positive significant
20	Haniffa and Cook 2002	CEO duality and Firmsize Board independent Government ownership		Board independent insignificant CEO duality negative association Firm size positive significant Government ownership positive significant
21	Nawaiseh et al 2015			
22	Belal and own 2007 bangladesh			
23	Chau and Gray 2010	Main ownership		Main ownership negatively significant
24	Islam and Deegan 2008			
25	Saudi Arabia Macarulla and Talalweh 2012			
26	Al Janadi et al (2012) Saudi Arabia			

27	Habbash 2015 Saudi Arabia	Governance, Family ownership, Firm size, Firm age, Leverage, Audit committee, Independence, duality, profitability, industry, institutional ownership	▪ 267 annual non-financial reports 2007-2011 ▪ 17 CSR checklist based on ISO 26000 ▪ Agency Theory – OLS	▪ Governance, Family ownership, Firm size, Firm age positively significant ▪ Leverage negatively significant ▪ Audit committee, Independence, duality, institutional ownership, profitability and Industry (no relation)
28	Hussainey et al (2011) Egypt	CEO duality Board Independent Directors ownership Board size Control variables (leverage, firm size, profitability and industry types)	• 100 Egyptian listed companies companies in 2009 • content analysis technique • OLS transformed multiple regression model • Another 3 models :corporate governance voluntary disclosure subcategories and corporate governance mechanisms. • binary logistic regression	Independent, firm size positive significant Board size insignificant CEO duality negative significant Leverage, industry, ROA insignificant
29	Khasharmeh and Desoky (2013) Gulf corporation			
30	Gallego-alvarez and Quina-custodio (2016)	FS, leverage, Profitability	▪ 110 companies in 2014 (the latest year available) ▪ 79 indicators (economic, environment, social) ▪ GRI G3.1 (2011) ▪ Multivariate analysis	▪ FS, leverage significant ▪ ROA insignificant
31	Li et al (2013)	Firm performance, State ownership	▪ Chinese listed companies (2008) ▪ 1574 non-financial listed firms ▪ Probit and Tobit regression	State ownership positive significance.
32	Kansal et al (2014)	Firm size, industry, profitability, Risk, Firm age, Corporate reputation	▪ India, top 100 companies in the Bombay stock exchange ▪ Content analysis ▪ Simple regression model (6 models) multiple regression	▪ Industry, reputation and profitability significant
33	Muttakin and Khan (2014)	Firm size, industry type, family ownership, export oriented industry, ROA, leverage, firm age	▪ 135 manufacturing companies listed with the Dhaka stock exchange (DSE) Bangladesh from 2005 to 2009	▪ Family ownership negative significant ▪ Firm size positive significant ▪ ROA positive significant

			▪ Multiple regression	▪ Leverage insignificant ▪ Firm age positive significant ▪ Industry type significant
34	Skouloudis et al (2013)	Firm size, industry (sensitivity), profitability, ROE, ROA, level of internationalisation, government ownership, foreign ownership,	▪ 100 largest companies based on annual revenues ▪ Generic mathematical equation	▪ Internationalisation, ownership identity, firm size, industry, profitability significant.
35	Fifka (2013)	Board independent		❖
36	Chau and Leung (2006)	Board independent		▪ Board independent positive relation
37	Weir and Laing (2003)	Board independent		▪ Board independent positive relation
38	Williams, 2002	Board independent		▪ Board independent positive relation
39	Ghazali and Weetman (2006),	Board independent CEO duality Directors ownership		▪ Board independent insignificant ▪ CEO duality insignificant ▪ Directors ownership negative association
40	Ho and Wong (2001)	Board independent CEO duality		▪ Board independent insignificant ▪ CEO duality insignificant
41	Lakhal, 2005,	CEO duality		▪ CEO duality negative association
42	Laksmana, 2008	CEO duality		▪ CEO duality negative association
43	Forker, 1992	CEO duality		▪ CEO duality negative association
44	Arcay and Vazquez, 2005	CEO duality		▪ CEO duality insignificant
45	Ruland, Tung, and George (1990)	Directors ownership		▪ Director ownership negative association
46	Samaha and Dahawy (2011	Directors ownership		▪ Director ownership negative association
47	Newson and Deegan (2002)	Industry		▪ Industry significant
48	Adams et al. (1998)	Company size Industry		▪ Company size and industry significant
49	Patten, 1991	Firm size		▪ Firm size positive significant
50	Hackston and Milne, 1996	Firm size		▪ Firm size positive significant
51	Richardson and Welker, 2001	Firm size		Firm size positive significant

52	Naser et al 2006	Firm size Leverage Government ownership		Corporate size, leverage positive significant government ownership insignificant
53	Delaney and Huselid (1996)	Firm age		Firm age positive significant
54	Gao, Heravi, and Xiao, 2005	Firm size		Firm size positive significant
55	Gray and Bebbington, 2001	Firm size		Firm size positive significant
56	Rettab et al. (2009)	Firm age		Firm age negative significant
57	Cowen Linda and Scott, 1987	Industry		Industry positive significant
58	Gray, 2002	Industry		Industry positive significant
59	Parsa and Deng, 2008	Industry		Industry positive significant
60	Wanderley, Lucian, Farache, and de Sousa Filho, 2008	Industry		Industry positive significant
61	Bayoud et al 2012	Firm size Firm age industry	▪ Mixed method (quan and qual) ▪ 135 Libyan organisations across four sectors (40 final sample for the quantitative study) ▪ three-year period from 2007 to 2009 ▪ content analysis ▪ multivariate regression	

	Significant	Insignificant
FS	Habbash 2015, Muttakin and Khan (2014), Hussainey et al (2011), Adams et al. (1998), Patten, 1991; Richardson and Welker, 2001; Abdul Hamid, 2004; Haniffa and Cooke, 2005), Naser et al 2006, (Alsaeed, 2006; Bayoud et al., 2012; Rob Gray et al., 2001; Hackston and Milne, 1996; Huang and Kung, 2010; Menassa, 2010; Wallace and Naser, 1996), Branco and Rodrigues, 2008; Gao, Heravi, and Xiao, 2005; Gray and Bebbington, 2001	Said et al 2009, Abdul Hamid 2004, Gallego-alvarez and Quina-custodio (2016)
FA	Habbash 2015, Muttakin and Khan (2014), Skouloudis et al (2013), Delaney and Huselid (1996), Rettab et al. (2009)	Al Saeed 2006, Menassa (2010)
ROA	Kansal et al (2014), Muttakin and Khan (2014), Skouloudis et al (2013), Gray et al., 2001; Hackston and Milne, 1996; Patten, 1991 and; Belkaoui and Karpik, 1989	Reverte 2009, Said et al 2009, Habbash 2015, Gallego-alvarez and Quina-custodio (2016), Hussainey et al (2011)
Leverage	Esa and Ghazali 2012, Branco and Rodrigues 2008, Said et al 2009, Naser et al 2002, Habbash 2015, Naser et al 2006, Esa and Malone et al.(1993)	Giannarakis and Konteos (2014), Al Saeed 2006, Reverte 2009, Siregar and Bachtair (2012), Gallego-alvarez and Quina-custodio (2016), Muttakin and Khan (2014), Hussainey et al (2011), Al Saeed 2006
Industry	Reverte 2009(sensitivity), Kansal et al (2014), Muttakin and Khan (2014), Skouloudis et al (2013), Adams et al. (1998), Newson and Deegan (2002), Bayoud et al., 2012; Branco and Rodrigues, 2008; Patten, 1992; Waddock and Graves, 1997), Cowen Linda and Scott, 1987; Gray, 2002; Parsa and Deng, 2008; Wanderley, Lucian, Farache, and de Sousa Filho, 2008)	Habbash 2015, Al Saeed 2006
Man own	Li et al (2013), Ruland, Tung, and George (1990), Ghazali and Weetman, 2006, Eng and Mak, 2003 , Samaha and Dahawy (2011)	
Gov. own	Haniffa and Cooke (2005)	Naser et al 2006
For. own	Khan et al 2012	
Pub. own	Khan et al 2012	

BS	Said et al 2009	Hussainey et al (2011)
IND.	Said et al 2009, Eng and Mak 2003, Barako et al 2006, Khan et al 2012, Chau and Leung (2006), Weir and Laing (2003), Williams, 2002, Eng and Mak (2003), Barako, Hancock, and Izan (2006),Gul and Leung (2004), Hussainey et al (2011)	Habbash 2015, Ghazali and Weetman (2006), Haniffa and Cooke (2002), and Ho and Wong (2001), Hussainey et al (2011)
CEO	Roberts et al 2005, Gul and Leung 2014, Huafang and Jianguo 2007, Lakhal, 2005, Laksmana, 2008, Forker, 1992, Haniffa and Cooke, 2002, Eng and Mak, 2003 , Hussainey et al (2011)	Giannarakis and Konteos (2014), Said et al 2009, Michelon and Parbon etti 2012, Cheng and Courtenary 2006, Khan et al 2012, Habbash 2015, (Arcay and Vazquez, 2005, Ghazali and Weetman, 2006, Ho and Wong, 2001)
Aaudit FS		Al Saeed 2006

Appendix 2: Saudi listed companies in Saudi Stock Exchange (Tadawul) 2012

NO.	Company	Industry
1	Advanced Petrochemical Company	Petrochemical
2	Alujain Corporation	Petrochemical
3	Methanol Chemicals co.	Petrochemical
4	Nama Chemicals co.	Petrochemical
5	National industrialization co.	Petrochemical
6	National Petrochemical company	Petrochemical
7	Rabigh Refining and Petrochemical co	Petrochemical
8	Sahara Petrochemical Co.	Petrochemical
9	Saudi Arabia Fertilizers co.	Petrochemical
10	Saudi Basic Industries Corp	Petrochemical
11	Saudi Industrials Investment Group	Petrochemical
12	Saudi International Petrochemical Co.	Petrochemical
13	Saudi Kayan Petrochemical Company	Petrochemical
14	Yanbu National Petrochemical Company	Petrochemical
15	AlJouf Cement Company	Cement
16	Arabian Cement Co	Cement
17	City Cement Co	Cement
18	Eastern Province Cement Co	Cement
19	Hail Cement Company	Cement
20	Najran Cement Company	Cement
21	Saudi Cement Company	Cement
22	Southern Province Cement Co	Cement
23	Tabuk Cement Co	Cement
24	The Qassim Cement Co.	Cement
25	Yamamah Saudi Cement	Cement
26	Yanbu Cement Co.	Cement

27	Abdullah Al Othaim Markets Company	Retail
28	Aldrees Petroleum and Transport Service Co.	Retail
29	AlKhaleej Training and Education Company	Retail
30	Dallah Healthcare Holding Company	Retail
31	FawazAbdulazizAlHokair Company	Retail
32	Fitaihi Holding Group	Retail
33	Jarir Marketing Co.	Retail
34	Mouwasat Media Services Company	Retail
35	Dallah Healthcare Holding Company	Retail
36	National Agriculture Marketing Co.	Retail
37	National Medical Care Company	Retail
38	Saudi Automotive Services Co	Retail
39	Saudi Marketing Company	Retail
40	United Electronics Company	Retail
41	National Gas and Industrialization Co.	Energy and Utilities
42	Saudi Electricity Company	Energy and Utilities
43	Al-Jouf Agriculture Development Co	Agriculture and food Industries
44	Almarai Company	Agriculture and food Industries
45	Anaam International Holding Group Co	Agriculture and food Industries
46	Ash-Sharqiyah Development Company	Agriculture and food Industries
47	BishahAqriculture Development Co	Agriculture and food Industries
48	Food Products Co	Agriculture and food Industries
49	HalawaniBross	Agriculture and food Industries
50	Herfy Food Services Co	Agriculture and food Industries
51	Jazan Development Co	Agriculture and food Industries
52	National Agriculture Development Co.	Agriculture and food Industries
53	Qassim Agriculture Co	Agriculture and food Industries
54	Saudi Airlines Catering Copany	Agriculture and food Industries

55	Saudi Fisheries Co.	Agriculture and food Industries
56	Saudi Dairy and Foodstuff Co.	Agriculture and food Industries
57	Savola Group	Agriculture and food Industries
58	Tabuk Agriculture Development Co	Agriculture and food Industries
59	Wafrah for industry and development	Agriculture and food Industries
60	Etihad AtheebTelecomunication Company	Telecommunication Company
61	Etihad Etisalat Co	Telecommunication Company
62	Mobile Telcommunications Company Saudi Arabia	Telecommunication Company
63	Saudi Integrated Telecom Company	Telecommunication Company
64	Saudi Telecom	Telecommunication Company
65	Al-Ahsa Development Co.	Multi-Investment
66	Al-Baha Investment and Development Co.	Multi-Investment
67	Aseer Trading, Tourism and Manufacturing Co.	Multi-Investment
68	Kingdom Holding Company	Multi-Investment
69	Saudi Arabian Refineries Co.	Multi-Investment
70	Saudi Industrial Services Co.	Multi-Investment
71	Saudi Advanced Industries Co.	Multi-Investment
72	Al Hassan Ghazi Ibrahim Shaker	Industrial Investment
73	Al Sorayai Trading And Industrial Group Company	Industrial Investment
74	AlAbdullatif Industrial Investment Co	Industrial Investment
75	Astra Industrial Group	Industrial Investment
76	Basic Chemical Industries	Industrial Investment
77	Filling and Packing Materials Manufacturing Co	Industrial Investment
78	National Metal Manufacturing and Casting Co.	Industrial Investment
79	Saudi Arabian Mining Company	Industrial Investment
80	Saudi Chemical Company	Industrial Investment
81	Saudi Industrial Export Co.	Industrial Investment
82	Saudi Paper Manufacturing Co.	Industrial Investment

83	Saudi Pharmaceutical Indust. and Med. Appliances Corp	Industrial Investment
84	Takween Advanced Industries	Industrial Investment
85	The National Co. for Glass Industries	Industrial Investment
86	Abdullah A. M. Al-Khodari Sons Copany	Building and Construction
87	Al-Babtain Power and Telecommunication Co.	Building and Construction
88	Arabian Pipes Company	Building and Construction
89	Middle East Specialized Cables Co	Building and Construction
90	Mohammed Al Mojil Group Company	Building and Construction
91	National Gypsum Company	Building and Construction
92	Red Sea Housing Services Company	Building and Construction
92	Saudi Arabian Amiantit Co	Building and Construction
93	Saudi Cable Company	Building and Construction
94	Saudi Ceramic Co.	Building and Construction
95	Saudi Industrial Development Co.	Building and Construction
96	Saudi Steel Pipe Company	Building and Construction
97	Saudi Vitrified Clay Pipes Co	Building and Construction
98	United Wire Factories Company	Building and Construction
99	Zamil Industrial Investment co	Building and Construction
100	Arriyadh Development Co.	Real Estate Development
101	Dar Alarkan Real Estate Development Company	Real Estate Development
102	Emmar The Economic City	Real Estate Development
103	Jabal Omar Development Company	Real Estate Development
104	Knowledge Economic City	Real Estate Development
105	Makkah Construction and Development	Real Estate Development
106	Saudi Real Estate Co.	Real Estate Development
107	Taiba Holding Co	Real Estate Development
108	Saudi Public Transport Co	Transport
109	Saudi Transport and Investment Company	Transport

110	The National Shipping Co. of Saudi Arabia	Transport
111	United International Transportation Company Ltd.	Transport
112	Saudi Printing and Packaging Company	Media and Publishing
113	Saudi Research and Marketing Group	Media and Publishing
114	Tihama Advertising and Marketing Group	Media and Publishing
115	Altayyar Travel Group	Hotel and Tourism
116	Saudi Hotels and resort Areas Co.	Hotel and Tourism
117	Tourism Enterprise Co.	Hotel and Tourism
118	Riyad Bank	Banking
119	Bank Aljazira	Bank
120	Saudi Hollandi	Bank
121	Banque Saudi Fransi	Bank
122	Saudi British bank	Bank
123	National Arab Bank	Bank
124	Samba Financial Group	Bank
125	Alrajhi Bank	Bank
126	Bank Albilad	Bank
127	Alinma Bank	Bank
128	Saudi Investment Bank	Bank
129	Ace Arabia Cooperative Insurance	Insurance
130	Al Alamiya for Cooperative Insurance	Insurance
132	Al-Ahlia Insurance Company	Insurance
133	Al-Rajhi Company for Cooperative Insurance	Insurance
134	Al Ahli Takaful	Insurance
135	AlinmaTokio Marine Co	Insurance
136	AlJazira Takaful	Insurance
137	Allianz Saudi Fransi Cooperative Insurance	Insurance
138	Allied Cooperative Insurance Group	Insurance

139	Amana Cooperative Insurance Co	Insurance
141	Arabian Shield Cooperative Insurance	Insurance
142	AXA Cooperative Insurance Company	Insurance
143	Bupa Arabia for Cooperative Insurance	Insurance
144	Buruj cooperative insurance company	Insurance
146	Gulf Union Cooperative Insurance Company	Insurance
147	Malath Cooperative Insurance and	Insurance
148	MetLife AIG ANB Cooperative Insurance	Insurance
149	SABB Takaful	Insurance
150	Salama Cooperative Insurance Co	Insurance
151	Sanad Insurance and Reinsurance	Insurance
152	Saudi Arabian Cooperative Insurance	Insurance
153	Saudi Enaya Cooperative Insurance Company	Insurance
154	Saudi Indian Company for Co- operative	Insurance
155	Saudi Re for Cooperative Reinsurance	Insurance
156	Saudi United Cooperative Insurance	Insurance
157	Solidarity Saudi Takaful Co	Insurance
158	The Company for Cooperative Insurance	Insurance
159	The Mediterranean and Gulf Insurance	Insurance
161	United Cooperative Assurance Co	Insurance
162	Wataniya Insurance Company	Insurance
163	Weqaya Takaful insurance and reinsurance	Insurance

Appendix 3: Saudi listed companies in Saudi Stock Exchange (Tadawul) 2016

No.	Company Name	Industry
1	Riad Bank	Banks and Financial Services (12)
2	Bank Al Jazira	
3	The Saudi Investement Bank	
4	Saudi Hollandi Bank	
5	Banque Saudi Fransi	
6	SABB	
7	Arab National Bank	
8	Samba Financial Group	
9	Al Rajhi Bank	
10	Bank Al Bilad	
11	Alinma Bank	
12	The National Commercial Bank	
13	Methanol Chemicals Company Ltd	Petrochemical Industries (14)
14	National Petrochemical Co.	
15	Saudi Basic Industries Corp.	
16	Saudi Arabian Fertilizers Co.	
17	National Industrialization Co.	
18	Alujain Corporation	
19	Nama Chemicals Co.	
20	Saudi Industrial Investment Group	
21	Sahara Petrochemical Co.	
22	Yanbu National Petrochemicals Co.	
23	Saudi International Petrochemical Co.	
24	Advanced Petrochemical co.	
25	Saudi Kayan Petrochemical Co.	
26	Rabigh Refining and Petrochemical Co.	
27	Hail Cement Co.	Cement (14)
28	Najran Cement Co.	
29	City Cement Co.	
30	Northern Region Cement Co.	
31	Um Al Qura Cement Co.	
32	Arabian Cement Co. Ltd	
33	Yamamah Saudi Cement Co. Ltd	
34	Saudi Cement Co.	
35	The Qassim Cement Co.	
36	Southern Province Cement Co.	
37	Yanbu Cement Co.	
38	Eastern Province Cement Co.	
39	Tabouk Cement Co.	
40	Al Jouf Cement Co.	
41	Al Othaim Holding Co.	Retail (17)
42	Al Mouwasat Medical Services Co.	

43	United Electronics Co.	
44	Dallah Healthcare Co.	
45	National Medical Care Co.	
46	Saudi Marketing Co.	
47	Al Hammadi Development and Investment Co.	
48	Saudi Co. for Tools and Hardware	
49	Middle East Healthcare Co.	
50	L'azurde for Jewelry	
51	Saudi Automotive Services Co. SASCO	
52	National Agr. Marketing Co.	
53	Fitaihi Holding Group	
54	Jarir Marketing Co.	
55	Aldrees Petroleum and Transport Services Co.	
56	Fawaz Abdulaziz Al Hokair and Partners Co.	
57	Al Khaleej Training and Education Co.	
58	National Gas and Industrialization Co. Gasco	Energy and Utilities (2)
59	Saudi Electricity Co.	
60	Savola Group	Agriculture and Food Industries (16)
61	Wafrah for Industry and Development Co.	
62	The Saudia Diary and Foodstuff Co.	
63	Almarai Co.	
64	Anaam International Holding Group Co.	
65	Halwani Brothers Co.	
66	Herfy Food Services	
67	Saudi Airlines Catering Co.	
68	National Agricultural Development Co.	
69	Gassim Agricultural Co. GACO	
70	Tabouk Agricultural Development Co. Tadco	
71	Saudi Fisheries Co.	
72	Ash Sharqiyah Development Co. SHADCO	
73	AL Jouf Agricultural Development Co.	
74	Bishah Agricultural Development Co.	
75	Jazan Development Co. JAZADCO	
76	Saudi Telecom Co.	Telecommunication and Information Technology (4)
77	Etihad Etisalat Co. Mobily	
78	Saudi Mobile Telecommunications Co.	
79	Etihad Atheedb Telecom	
80	The Company for Cooperative Insurance	Insurance (36)
81	Metlife AIG ANB Cooperative Insurance Co.	
82	Al Jazira Takaful Co.	
83	Malath Cooperative Insurance and Reinsurance Co.	
84	Mediterranean and Gulf Insurance and Reinsurance Co.	
85	Allianz Saudi Fransi Cooperative Insurance Co.	
86	Saudi United Cooperative Insurance Co.	
87	Saudi Cooperative Insurance Co.	
88	Arabian Shield Cooperative Insurance Co.	

89	SABB Takaful Co.	
90	Sanad Cooperative Insurance Co.	
91	Saudi Arabian Cooperative Insurance Co.	
92	Saudi Indian Co. for Cooperative Insurance	
93	Gulf Union Cooperative Insurance Co.	
94	AlAhli Takaful Co.	
95	Al Ahlia Insurance Co.	
96	Allied Cooperative Insurance Group	
97	Arabia Insurance Cooperative Co.	
98	Arabia Insurance Cooperative Co.	
99	Trade Union Cooperative Insurance Co.	
100	Al Sagr Company for Cooperative Insurance	
101	United Cooperative Assurance Co.	
102	Saudi Reinsurance Co.	
103	Bupa Arabia For Cooperative Insurance Co.	
104	Weqaya Takaful Insurance and Reinsurance Co.	
105	Al Rajhi Co. for Cooperative Insurance	
106	ACE Arabia Cooperative Insurance Co.	
107	AXA Cooperative Insurance Co.	
108	Gulf General Insurance Co.	
109	Buruj Cooperative Insurance Co.	
110	ALalamiya Cooperative Insurance Co.	
111	Solidarity Saudi Takaful Co.	
112	Wataniya Insurance Co.	
113	Amanah Cooperative Insurance Co.	
114	Saudi Enaya Cooperative Insurance Co.	
115	Alinma Tokio Marine Co.	
116	Saudi Arabian Refineries Co.	Multi Investment (7)
117	Saudi Advanced Industries Co.	
118	Al Ahsa Development Co.	
119	Saudi Industrial Services Co.	
120	Aseer Trading, Tourism, Mfg., Agri., Real Estate, and Contracting	
121	Al Baha for Development and Investment Co. ABDICO	
122	Kingdom Holding Co.	
123	Takween Advanced Industries Co.	Industrial Investment (15)
124	Basic Chemical Industries Co.	
125	Middle East Paper Co.	
126	Saudi Arabian Mining Co.	
127	Astra Industrial Group	
128	Al Sorayai Trading and Industrial Group	
129	Al Hassan Ghazi Ibrahim Shaker Co.	
130	Saudi Pharmaceutical Indus. and Medical Appliances Corp.	
131	The National Co. for Glass Industries	
132	Filing and Packing Material Mfg. Co.	
133	National Metal Manufacturing and Casting Co.	
134	Saudi Chemical Co.	

135	Saudi Paper Manufacturing Co.	
136	Al-Abdullatif Industrial Investment Co.	
137	Saudi Industrial Export Co.	
138	United Wire Factories Company	Building and Construction (18)
139	Bawan Co.	
140	Electrical Industries Co.	
141	Al Yamamah Steel Co.	
142	Mohammed Al Mojil Group Co.	
143	Saudi Steel Pipes Co.	
144	Abdullah A. M. Al Khodari Sons Co.	
145	Saudi Ceramics Co.	
146	National gypsum Co.	
147	Saudi Cable Co.	
148	Saudi Industrial Development Co.	
149	Saudi Arabian Aminantit Co.	
150	Arabian Pipes Co.	
151	Zamil Industrial Investment Co.	
152	Al Babtain Power and Telecommunication Co.	
153	Saudi Vitrified Clay Pipe Co.	
154	Middle East Specialized Cables Co.	
155	Red Sea Housing Services Co.	
156	Saudi Real Estate Co.	Real Estate Development (9)
157	Taiba Holding Co.	
158	Makkah Constr. and Development	
159	Arriyadh Development Co.	
160	Emaar The Economic City	
161	Jabal Omar Development Co.	
162	Dar Alarkan Real Estate Development Co.	
163	Knowledge Economic City	
164	Al Andalus Property Co.	
165	The National Shipping Co. of Saudi Arabia	Transport (5)
166	Saudi Ground Services Co.	
167	Saudi Public Transport Co.	
168	Saudi Land Transport Co. MUBSRRAD	
169	United International Transportation Co. Ltd	
170	Tihama Advt. and Public Relations Co.	Media and Publishing (3)
171	The Saudi Research and Marketing Group	
172	Saudi Printing and Packaging Co.	
173	Al Tayyar Travel Group	Hotel and Tourism (4)
174	Abdulmohsen Al Hokair Group for Tourism and Development Co.	
175	Dur Hospitality Co.	
176	Tourism Enterprises Co. SHAMS	

Appendix 4: CSED Index and rules of analysing the reports

CSED Index main categories:	
1.	Environmental disclosure
1.1.	Environmental Pollution
1.2.	Conservation of natural resources
1.3.	Energy
1.4.	Aesthetic
1.5.	Biodiversity
1.6.	Environmental (other)
2.	Human resource disclosure
2.1.	Training and staff development
2.2.	Pay and benefits
2.3.	Participation and staff involvement
2.4.	Health and safety and individual well-being
2.5.	Measures of human resources policies
2.6.	Employment policies
2.7.	Equal opportunities
2.8.	Work-life balance
2.9.	Human resource (other)
3.	Products and consumer disclosure
3.1.	Product development
3.2.	Product safety
3.3.	Product quality
3.4.	Consumers' relations
3.5.	Product and consumer (other)
4.	Community involvement disclosure
4.1.	Support for education or training
4.2.	Support for art and culture
4.3.	Support for public health and safety
4.4.	Sponsoring sporting or recreational projects
4.5.	Community involvement (other)
5.	Economic
5.1.	Economic performance
5.2.	Market Presence
5.3.	Indirect economic impacts
5.4.	Saudisation
5.5.	Economic (other)
6.	Social and general disclosure
6.1.	Sustainability and Transparency
6.2.	Anti-Corruption
6.3.	General disclosures

Rules of analysing the reports from (Hackston and Milne, 1996; O'Dwyer, 2005a)

1. Discussion of directors' activities is not to be included as a discussion on employees.

2. All sponsorship activity is to be included no matter how much it is advertising.

3. All disclosures must be specifically stated, they cannot be implied.

"4. If any sentence has more than one possible classification, the sentence should be classified as to the activity most emphasized in the sentence."

5. Innovations in products or services should not be included unless they are beyond what is necessary to compete in the marketplace or attract business."

6. Any disclosure which is repeated shall be recorded as a CSD sentence each time it is discussed."

7. Discussions relating to the quality of goods and services will not be a CSD unless it contains notice of a verifiable change in quality, Organisation ISO 9000 quality series standard."

e.g. accreditation to the International Standards

Appendix 5: Saudi listed companies by sectors in 2014

Sector	No. of Companies
Banks and financial services	12
Petrochemical industry	14
Building and Construction	16
Real Estate Development	8
Cement	14
Transport	4
Media and Publishing	3
Hotel and Tourism	4
Retail	14
Energy and Utilities	2
Agriculture and Food Industry	16
Telecommunication and information technology	5
Insurance	35
Multi investment	7
Industrial Investment	14
Total	168

Reference: Saudi Stock exchange official website November 2014

Appendix 6: The sample of the index pilot study

No.	Industry	Company name
1	Retail	Fawaz Al-Hokair Group
2	Multi investment	Saudi Refining Inc.
3	Industrial investment	Saudi Chemical Company
4	Bulding and construction	Zamil Group
5	Transport	The National Shipping of Saudi Arabia
6	Media and publishing	Tihama Holding
7	Cement	Saudi Cement company
8	Petrochemicals	Petro Rabigh
9	Food and agriculture	Savola Group
10	Telecommunications	Saudi Telecommunications Company
11	Energy and utilities	Saudi Electricity Company
12	Real State	Jabal Omar Developmwnt Co.
13	Tourism	Al-Tayyar Group
14	Banking	Saudi British Bank
15	Insurance	Puba Arabia